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INTERNATIONAL ENERGY BIWEEKLY REVIEW

Overview

At the moment, agreement on an increase of 5 to 10 percent in the price of Saudi benchmark crude seems probable as cartel members prepare for their December meeting in Caracas. Whatever the outcome at Caracas, the next OPEC price rise will occur in the midst of an already troubled economic environment. Almost without exception the economic outlook for developed countries is poor—real growth is slowing almost across the board, unemployment is high and creeping still higher, and inflation remains stuck at double the long-term rate. Each of these problems will be aggravated by higher oil prices. In the event of a 10-percent oil price rise, the loss in Big Seven real GNP will approximate half a percent while nearly a full percentage point will be added to the rate of inflation. The damage to growth could be substantially worse if oil-related losses in real income and price stability spark a strong negative reaction from consumers and investors.

Smaller industrial countries will be hit harder than the Big Seven by the oil price rise on several counts. For one thing, the direct loss in GNP will be larger since the smaller countries spend a higher proportion of their income on imported oil. In several cases, notably Turkey, severe payments problems and inability to finance higher oil import costs will necessitate still larger reductions in real GNP, perhaps as much as 2 percent in some instances. For non-OPEC LDCs, the chief impact of higher oil prices will be a more than $2 billion worsening in their current account deficit. In these circumstances, developing countries would need offsetting increases in foreign exchange drawdowns or added foreign borrowing to maintain imports and avoid losses in consumption and growth.

Our analysis does not attempt to assess the impact of the next OPEC price rise on longer term problems, particularly the issue of future oil supply shortages. Given the lead times involved in developing new supplies, the main adjustments will have to be made on the demand side through higher real prices and in turn slower economic growth, as well as stricter government-mandated conservation measures. At this point, it is impossible to assess how much of an impact toward closing the potential energy supply gap a 10-percent nominal price increase will have.

Despite the potential adverse effects of an oil price rise, foreign governments are not inclined to appeal to OPEC for restraint. The developed countries—large and

Note: Comments and queries regarding this publication are welcome. They may be directed to [redacted] of the Office of Economic Research, telephone 351-5804.

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small—are convinced that only the United States can put effective pressure on OPEC. While many would join in a move to try to hold oil prices down, they believe it would be merely a pro forma exercise. Others, which want to preserve what they believe are special relationships with OPEC countries, would try to avoid any involvement. The non-OPEC LDCs may argue against an oil price hike but would do it privately and on their own. Association with the developed countries on this issue would be politically unthinkable. (Confidential)

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ECONOMIC IMPACT AND CONSEQUENCES OF ANOTHER OPEC PRICE RISE

The following analysis by the Office of Economic Research discusses the potential impact of a 10-percent rise in OPEC oil prices this December, under certain assumptions about government policies in the major developed countries. OER assumes (a) that fiscal policies are not adjusted either to offset or to reinforce the contractionary effects of an oil price hike and (b) that monetary policy is neutral, that is, money supply is permitted to adjust to changes in the demand for money due to oil price hikes. In reality, policy reactions will differ widely from country to country, and no one can prejudge the action that will be taken. Nor can anyone prejudge the psychological impact on consumer and investor confidence, elements which could prove overriding during a period of sharp economic slowdown.

Impact on Major Countries

The contractionary impact of a 10-percent oil price rise on domestic demand would directly reduce real GNP in major countries from what it would have been. Additional losses would occur as income declines in one country are transmitted to others through reduced trade flows. Altogether, these income losses would reduce real GNP in the Big Seven countries by roughly half a percent next year.* At the same time, higher oil prices would add nearly 1 percentage point to inflation in the industrial countries while causing a roughly $7 billion deterioration in their combined trade balance.

Given the impacts, we estimate higher oil prices would pose considerable risks to the already weakening pace of economic recovery. If expansion continues to languish or worsen, as we now expect, the oil-related losses in real income and price stability could spark a strong negative reaction from consumers and investors. The risks of this occurring are particularly high if prices rise at a time when recession psychology is already setting in and households increase savings rates in response to higher inflation and oil-related job losses. In these circumstances the possibility of

Note: The results in this paper were calculated through use of an econometric model linking the domestic and international operations of the Free World economies. See appendixes A to C.

*The calculation of GNP loss assumes that the full contractionary impact of higher oil prices occurs within one year. Most econometric models employed in examining the impact of the 1973-74 oil price hikes assumed that 75 percent of the impact occurred in the first 12 months and the remainder in the next 12 months. If we assume the same pattern, real GNP would be cut by 0.4 percent in 1978. The cumulative effect would still bea0.5-percent decline in real GNP from what it would have been.

Big Seven: Impact on Real 1978 GNP of a 10-Percent Oil Price Rise

Percent Change

	Total Impact	Oil-Related Losses [1]	Oil-Related Gains [2]
United States	−0.4	−0.6	0.2
Japan	−0.8	−1.2	0.4
West Germany	−0.5	−0.8	0.4
France	−0.6	−1.0	0.4
United Kingdom	−0.1	−0.5	0.3
Italy	−0.9	−1.3	0.4
Canada	−0.2	−0.4	0.2
Weighted Average	**−0.5**	**−0.8**	**0.3**

[1] Direct and indirect GNP losses due to higher oil prices.
[2] Direct and indirect GNP gains due to price rises for exports to OPEC.

Big Seven: Impact on 1978 Inflation of a 10-Percent Oil Price Rise

Percentage Point Change

	GNP Deflator Index	Consumer Price Index	Wholesale Price Index
United States	0.5	0.5	0.5
Japan	1.0	0.9	1.5
West Germany	0.7	0.6	1.0
France	0.8	0.7	1.3
United Kingdom	1.3	1.2	1.1
Italy	1.1	1.0	1.3
Canada	0.6	0.5	0.5

Big Seven: Change in 1978 Trade Due to a 10-Percent Oil Price Rise

Million US $

	Oil Imports	Non-Oil Imports	Exports [1]	Total Trade Deficit
Total	**10,080**	**−2,490**	**280**	**7,310**
United States	3,970	−660	160	3,150
Japan	2,650	−490	270	1,890
West Germany	1,230	−450	−160	940
France	1,000	−370	10	620
United Kingdom	270	−70	100	100
Italy	910	−340	110	460
Canada	50	−110	−210	150

[1] Including an increase in exports to OPEC countries resulting from the higher oil revenues due to an assumed 10-percent price hike. These increases total $670 million for the United States, $490 million for Japan, $440 million for West Germany, $270 million for France, $270 million for the United Kingdom, $220 million for Italy, and $50 million for Canada.

oil price hikes turning a moderate cyclical downturn into a serious one cannot be completely ruled out.

Country Impacts

Even if a recession response is avoided, the impact on growth will be considerable, reducing real Big Seven GNP by approximately $21 billion from what it would have been. Italy would be the biggest loser, with real GNP dropping almost 1 percent. Japan and France would face losses exceeding 0.5 percent, while the other countries would experience smaller income reductions. In the case of West Germany—the only foreign country for which the impact on individual components of final demand can be readily calculated—the rise in oil prices would reduce growth in 1978 personal consumption by nearly 0.4 percentage points and growth in fixed investment by nearly 1 percentage point.

Higher oil prices would have a significant impact on the rate of inflation in major countries. General price levels, as measured by the GNP deflator, would be increased by 0.7 percent on average; the rise in consumer prices would be roughly the same. The United Kingdom and Italy, where inflation remains high, would experience the largest oil-related price rises. The United States would be more vulnerable to the inflationary impact than in the past, since imports now account for almost 50 percent of US oil supplies. In all cases, the impact would be comparable to a more than 20-percent price hike four years ago, because of the increased share of oil in industrial production costs. In addition to the direct impact on production costs, higher oil prices will add indirectly to inflation pressures by fueling wage demands.

The oil price hike would cause at least a $7 billion deterioration in the total trade balance of the Big Seven. Their net oil import bill will increase by roughly $10 billion, with the United States accounting for almost 40 percent of the rise. Higher oil bills will be only partly offset by reduced import demand caused by oil-related income losses and increased sales to OPEC members. We estimate that the price-induced rise in exports to OPEC would amount to little more than $2 billion next year for the Big Seven as a group. West Germany and Japan would account for about 40 percent of the increase, given their share of the OPEC market. Even with increased sales to OPEC, Canada will face an erosion in its non-oil trade balance because of the fall-off in US demand for Canadian goods.

Country Risks

West European countries will have the hardest time dealing with the effects of higher oil prices. France and Italy would face particularly tough sledding. With unemployment stubbornly high, Paris would be in a bad position to absorb any

oil-related job losses. Acting alone to compensate for these losses by taking stimulative measures would add substantially to France's already large current account deficit. Italy, for its part, would be constrained from acting because of its still high inflation rate. Offsetting the contractionary effect on demand would add about $350 million to Italy's import bill next year.

West Germany is in a much stronger position to offset the effects of oil price hikes by taking stimulative fiscal measures. Bonn, however, is unlikely to add to the $6 billion package recently announced because of continuing concern over inflation. In these circumstances, West German forcasts of 3.5-percent real GNP gains next year may well prove overly optimistic, especially if oil price hikes further erode consumer and business confidence. The United Kingdom can probably absorb the oil effects fairly well in view of increasing North Sea production. Given its dependence on foreign trade, however, the UK would be hurt in the event of large shortfalls in growth in Germany, France, and elsewhere.

Big Seven: Fiscal Stimulus Required to Offset the Impact on GNP of a 10-Percent Oil Price Rise

Million US $

	Increase in Government Expenditures		Reduction in Taxes	
	Unilateral Action	Simultaneous Action	Unilateral Action	Simultaneous Action
United States	2,680	1,780	3,770	2,890
Japan	1,790	1,067	2,960	1,820
West Germany	1,040	540	1,510	680
France	740	440	1,000	620
United Kingdom	150	100	170	70
Italy	610	450	780	620
Canada	240	70	300	30

Japan's position is similar to that of West Germany, although it enjoys a larger growth cushion. Offsetting the contractionary effects of oil prices on demand, however, would require a nearly $2 billion increase in government expenditures or a $3 billion tax cut. Given Tokyo's concern over large budget deficits and continuing high inflation, the government will be reluctant to take such measures. The fiscal requirements would be cut roughly in half if all major countries did so simultaneously. Canada's economic problems will be exacerbated less by the direct effects of the oil price rise on domestic demand than by the loss in exports associated with the oil-induced reduction in US GNP.

Smaller Industrial Countries

The smaller industrial countries will be hit harder than the Big Seven by the oil price rise. The direct contractionary impact on domestic demand would be larger since a higher proportion of their income is spent on imported oil. Their heavy reliance on sales to the major industrial countries also makes many of them vulnerable to the oil-induced reductions in Big Seven demand. Altogether, the smaller countries as a group would experience a roughly 0.6-percent decline in real GNP from what it would have been and a roughly $2.0 billion deterioration in the trade balance. Given the severity of growth and payments problems that many of these countries already face, there is relatively little room to offset the income effects without exacerbating payments difficulties.

Growth and Trade Impacts

The 10-percent oil price rise will have a pronounced impact on the growth of most smaller industrial countries, with the Mediterranean countries facing the biggest losses. In the case of Greece and Portugal, for example, real GNP will be reduced 0.7 percent below what it would have been, according to our calculations. Spain would face a similar loss, while the decline in Sweden will approximate half a percent. Other big losers include Austria, Turkey, Denmark, and Finland, all heavily dependent on oil imports. At the other extreme, the Netherlands and Norway should make out reasonably well because of large net exports of oil and gas.

Selected Smaller Industrial Countries: Estimated Impact of a 10-Percent Oil Price Rise

	Oil-Related Loss in GNP (Percent)	Oil-Related Rise in Trade Deficit (Million US $)
Australia	0.2	150
Austria	0.7	20
Belgium	0.6	120
Denmark	0.7	120
Finland	0.5	100
Greece	0.7	80
Portugal	0.7	50
Spain	0.6	400
Sweden	0.5	260
Switzerland	0.6	150
Turkey	0.5	140

On the trade front, the increase in prices would add more than $2.8 billion to the net oil import bill of smaller industrial countries, bringing their total costs to almost $30 billion. Like the Big Seven, only a small part of the additional oil bill will be offset by increased sales to OPEC countries resulting from the oil price hikes. The

oil-induced erosion of demand will also reduce non-oil imports, but only slightly faster than the oil-related fall in exports to Big Seven countries. Even with these offsets, the 17 smaller industrial countries will face at least a $2 billion increase in their combined trade deficit as a result of the 10-percent price rise.

Smaller Industrial Countries with Payments Constraints: GNP Loss Required To Prevent Trade Balance Deterioration

	GNP Loss (Percent)		GNP Loss (Percent)
Austria	0.7	Portugal	1.3
Denmark	1.1	Spain	2.2
Finland	1.5	Sweden	1.2
New Zealand	1.2	Turkey	2.0

The smaller countries, of course, would face a substantially larger trade deterioration if they attempt to maintain normal income levels in the face of the oil price hike. According to our calculations, their combined trade deficit would worsen by about $4.0 billion instead of $2.0 billion if they take stimulative measures sufficient to offset the GNP impact of the oil price rise.* Alternatively, if they choose to avoid any deterioration in their trade accounts, as some will have to do, the oil-related reduction in real GNP would amount to nearly 1.5 percent instead of 0.6 percent. Big Seven countries would also incur additional income losses as a result of the steeper decline in small country import demand.

Danger Points

The magnitude of the income and payments effects of an oil price hike will pose problems for several smaller industrial countries. Turkey, in particular, will face serious debt and payments problems even without higher oil prices. In addition to knocking one-half percentage point from its already dim growth prospects, the 10-percent oil price rise will add at least $140 million to Turkey's current account deficit—an amount Ankara simply cannot finance. If Ankara is unable to obtain offsetting financing, it will have to reduce income by at least an additional 1.5 percent, bringing the total oil-related loss to 2 percent.

The oil price hike will also aggravate problems for Spain and Portugal, impairing their ability to correct growth and payments difficulties. For Spain, the total foreign exchange costs will amount to $400 million; the costs would rise to nearly $600 million if the Spanish Government tries to avoid the 0.6-percent loss in GNP that would accompany the oil price rise. The comparable cost for Portugal would be $50 million or more, an amount Lisbon can ill afford. Among other small countries, Sweden and Denmark will also have to make adjustments to absorb their increased deficits of $260 million and $120 million, respectively.

*This calculation assumes that the smaller 17 countries act simultaneously and that the Big Seven do not take stimulative measures to offset the oil-price impact on GNP.

Impact on Developing Countries

For non-OPEC LDCs, the chief impact of higher oil prices will be on their foreign economic position. The price rise would appreciably worsen their current account deficit by adding roughly $2.2 billion directly and indirectly to import costs. In these circumstances, developing countries would need offsetting increases in foreign exchange drawdowns or added foreign borrowing to maintain imports and avoid further losses in consumption and growth. Some losses in exports could also be expected to occur. Altogether, the non-OPEC LDCs would experience roughly a 2-percent deterioration in the terms of trade as a result of the price hikes.

Trade Impact

The 10-percent oil price rise would add nearly $1.4 billion to the net oil import bill of non-OPEC LDCs as a group, raising their total oil bill (net) to about $15 billion. Brazil, South Korea, Taiwan, and India would face the largest increase in costs. The 50 or more LDCs that import only about 10,000 b/d would each pay $4 million more annually for their oil purchases. With the possible exception of Mexico, even the non-OPEC LDCs that are now small net oil exporters may not come out ahead. A rise in their non-oil import costs and a loss in export volume will at least partly offset gains from higher prices for their oil.

Non-OPEC LDCs: Impact of a 10-Percent Oil Price Rise on Import Costs

Million US $

	Total	Direct [1]	Indirect [2]
Total	**2,220**	**1,350**	**870**
Of which:			
Argentina	58	29	29
Brazil	421	357	64
Chile	45	33	12
India	179	143	36
Peru	21	4	17
South Korea	221	169	52
Taiwan	185	134	51
Zaire	10	3	7
Zambia	16	9	7

[1] Additional costs of oil imports resulting from higher oil prices.
[2] Additional costs of non-oil imports resulting from higher oil prices.

By raising production costs in developed countries, the 10-percent rise in oil prices would add almost $900 million to developing countries' non-fuel import costs in 1977. By our calculations, non-OPEC LDC import prices for foodstuffs, intermediate products, and finished goods would increase 0.8 percent on the average if oil prices rise 10 percent.

Non-OPEC LDCs: Impact on Non-Oil Unit Import Costs of a 10-Percent Oil Price Rise

Percent

Imports from the Big Seven [1]	0.8
United States	0.4
Japan	1.3
West Germany	0.8
France	0.7
United Kingdom	1.0
Italy	1.1
Canada	0.4

[1] Based on 1973 trade weights.

At the same time, oil-related loss in developed countries real GNP would adversely affect LDC export volume by reducing demand for industrial raw materials below what it would have been. We estimate that the volume losses could cost non-OPEC LDCs almost $400 million. Some, particularly exporters of light manufactured goods, would compensate by raising export prices in line with oil-related increases in production costs. Raw material exporters may face softer markets because of oil-weakened demand in major countries.

Trouble Spots

For a number of countries, the oil price hikes will complicate already serious international financial problems. Zaire, now facing severe financial difficulties, will see its import bill rise by $10 million, absorbing almost 15 percent of this year's growth in export earnings. The cost to Zambia, also facing tough economic times because of weak copper prices, will be a more than $15 million rise in import costs. The added costs to Peru, Chile, Jamaica, and Ghana, although small by international standards, will be quite large relative to their ability to pay. As a share of exports, the cost increase will be largest in the case of Jamaica. In all these instances, even small rises in import costs will impose special burdens unless offset by increased aid.

Among the larger developing countries, Brazil will have the toughest time absorbing the foreign exchange costs of higher oil prices. Altogether, oil-related cost increases will add at least $400 million to $500 million to Brazil's import bill next year. These added costs, together with the recent sharp decline in prices for key Brazilian exports, will give a strong push to the current account deficit and, at a minimum, delay plans to relax economic austerity measures. Other countries likely to have problems absorbing oil-related foreign exchange costs include the Philippines and Morocco, both of which are already incurring larger current account deficits than they can sustain.

Downside Risks

The risks of higher oil prices having a substantially worse impact than we have estimated are not inconsequential, particularly if present projections of 1978 GNP growth in the absence of the oil price rise prove overly optimistic. As it is, estimates of 1977 growth are being sharply revised downward, especially in Western Europe. If economic activity should continue this downward drift, the rise in oil prices would occur when recessionary psychology may already be setting in. This would be in marked contrast to the timing of last year's OPEC action, which occurred when recovery, though slow, appeared fairly well entrenched.

The real question is whether already weakening consumer confidence will be further eroded by the effect of higher oil prices on income, prices, and employment.

If, for example, the momentum of events leads to an increase in household savings rates, the impact on aggregate demand would prove serious. By our calculations, an increase in the savings rate of 1 percentage point, coupled with the oil price rise, would reduce real growth next year in Big Seven countries to only one-half of what is now projected. In these circumstances, real GNP gains would be limited to a mere 2 percent. This is substantially worse than what would occur as a result of a normal response to oil price hikes.

Western Europe is particularly vulnerable to this recession scenario. Even without the oil price rise, real growth in Western Europe will average at best 3 percent. The oil price hike, combined with a recession response, would cut growth to only 1 percent or so. This of course assumes that governments take no measures to compensate for the contractionary impact of the oil price rise on demand. Taking such action would help forestall a recessionary response on the part of consumers and investors. Weaker governments in Western Europe, including the Mediterranean countries, may lack the balance-of-payments flexibility needed to take corrective domestic action unless the stronger economies do likewise.

Appendix A

Determining the Impact of Higher Oil Prices on GNP in Developed Countries

Major Industrial Countries: Base Case Impact

To measure the impact of higher oil prices on real and nominal GNP, we first calculated appropriate tax and expenditure multipliers* using 1960-73 data for each economy. In determining the multipliers, we linked the major economies together using marginal propensities to import and estimated 1976 trade shares. This procedure allows measurement of income losses in each country, including the indirect losses that are transmitted among countries through reduced international trade—a necessary approach in view of the simultaneous impact of higher oil prices on most economies.

Before applying these multipliers, nominal 1978 GNP was increased to take into account the higher rate of inflation caused by the oil price hike. (The methods used in deriving the inflationary effects are discussed in Appendix B.) Because the increase in oil prices will have the same effect on consumer purchasing power as a tax increase, we applied the tax multiplier to the rise in oil costs in deriving the full impact on nominal GNP as the oil price increase works its way through the economy.

*These multipliers measure the total change in GNP caused by a change in taxes or in government expenditures.

There will be some natural offsets that will tend to reduce the impact on GNP. The most important of these will be the rise in developed country exports to OPEC that is caused by the increase in OPEC revenues attributable to higher oil prices. As with all exports, these sales to OPEC will have a stimulative effect similar to that brought about by a rise in government expenditures; we thus applied an expenditure multiplier to determine the full effects of those increased sales on national income. When these effects are combined with the contractionary effects of the oil price hike, they yield the net loss in nominal GNP. To derive the loss in real GNP, these nominal values were deflated by the oil-adjusted GNP price deflator for each country.

Major Industrial Countries: Recession Case Impact

The impact of higher oil prices on real GNP would be substantially greater if consumers reacted by increasing their savings. To calculate the effect of an oil-induced rise in savings rates, we assumed that households would permanently shift 1 percent of their consumption into savings; thus, in an economy where desired savings are 15 percent, this would imply almost a 1-percentage-point increase in the savings rate.

Smaller Industrial Countries: Growth Impact

To assess the impact of a 10-percent oil price rise on the real GNP of the smaller industrial countries, we used a reduced form model that links 29 countries or regions through their foreign trade sector. We simulated the oil-price-rise impact in this model by introducing an autonomous shock into the GNP equation for each country or region that was equivalent to the size of the income drain from higher oil prices. Thus, GNP in each of the countries initially dropped by an amount equal to the size of the increased oil payments. This initial shock and its international feedback provided the estimated GNP impact of the oil price hike on the smaller industrial countries.

We compared, for each of the Big Seven countries, the results of both the reduced form and larger link models. We found the GNP impacts were similar. Consequently, we feel the results estimated by the reduced form model for the smaller industrial countries are comparable with the estimates for the Big Seven.

Appendix B

Determining the Impact of Higher Oil Prices on Inflation Rates in Major Developed Countries

To calculate the impact of higher oil prices on inflation rates in the major developed countries, input-output tables for the United States, Japan, West

Germany, France, the United Kingdom, and Italy were used. The tables enabled us to measure how a change in oil prices affects unit costs for individual items. We then assumed that workers will strive to maintain real wages in the face of the increased inflation caused by oil, forcing nominal wages to rise faster than they would have in the absence of higher oil prices. These oil-induced wage increases provide the second-round impact of an oil price hike on general price levels.

The input-output tables have a somewhat different structure for each country. For the United States we used the Department of Commerce's 87-sector table for 1967. For Japan, we used the Economic Planning Agency's 60-sector table for 1970. For France, Italy, and the United Kingdom, 75-sector tables were used, and for West Germany, a 43-sector table. Each table was aggregated to a common format and updated to take account of relative price movements through mid-1976 using disaggregate wholesale price data for each country. By updating the price weights, we were able to take account of changes in relative prices across national economies. The major factor, of course, is the sharp rise in importance of energy costs since the tables were originally constructed.

To derive the initial impact of higher oil prices on unit costs for each sector, the updated coefficients in the relevent row in the inverted input-output tables ($(I-A)^{-1}$) were increased by the change in crude oil prices. We judgmentally adjusted prices for other primary energy sources because the rise in oil prices tends to pull up these prices as well. In the case of the United States, however, the oil price rise was weighted by taking into account price controls on domestic production. The resulting sectoral changes in unit costs were then used to construct wholesale and consumer price indexes reflecting the expected rise in oil prices. National weights for each economy were used in this construction.

We then adjusted wage rates for the rise in price levels caused by higher oil prices. The adjustments were made on the basis of quantitative relationships established between changes in the consumer price index and changes in hourly pay rates. The oil-induced portion of wage rate increases in turn caused a secondary rise in price levels by adding to unit production costs. In general, two iterations were made on each economy to capture what we believe would be most of the effect of a rise in oil prices.

The process, which assumes a dollar-for-dollar pass-through in costs, provided the cumulative oil impact on wholesale and consumer prices in each economy. We then used these results to derive the impact on the implicit GNP price deflator for each economy. This measurement was obtained by establishing the quantitative relationship between changes in the consumer price index and changes in the GNP deflator for each country.

Appendix C

Determining the Impact of Higher Oil Prices on Trade Balances

Major Countries

The rise in oil prices will increase net oil import costs across the board. To determine the impact on these costs, we first estimated 1978 net oil import volumes for each major country.* These estimates put 1978 import demand at 22.1 million b/d for the group as a whole. At this level of demand, each 5-percent oil price rise would add nearly $5 billion to the oil import bill of the major countries.

While oil import costs would increase, non-oil imports would be lower than in the absence of oil-induced income losses. To determine the reduction in such imports, we estimated the marginal propensity to import for each major country; in so doing, we could measure the change in import demand associated with a given change in GNP. With import demand reduced, exports of each major country will also be reduced since the largest share of non-oil imports by Big Seven countries comes from within the group. Using our multiplier model (see Appendix A), we distributed the reduction in each country's imports among the major exporters.

Smaller Industrial Countries

The impact on the smaller industrial countries' trade balances was calculated using the reduced form link model. The impact of the oil price rise on each country's imports volume was calculated by considering the effect of the oil-induced change in real GNP on import demand. The impact on each countries' export volume was calculated by considering the fall in trading partners' imports. The change in trade volume was then converted to value terms using assumed oil-induced changes in export prices and changes in import prices calculated from the change in trading partners' export prices. The results obtained for Big Seven trade balances using the reduced form model were similar to the estimates provided by the larger link model. This again suggests the results for the smaller industrial countries are comparable to those for the Big Seven.

Developing Countries

For non-OPEC LDCs the chief impact of higher oil prices will be on their foreign economic position. To calculate trade balance effects, the direct impact of higher crude prices on the non-oil LDCs' net oil import bill was first calculated.

*We assume that oil import volume will be essentially unchanged from what it would have been in the absence of an oil price hike. Experience since 1973 indicates a high inelasticity in demand for oil; given the small response to the 400-percent rise in crude oil prices in 1973-74, a 5-, 10- or 15-percent price rise should have little effect.

Indirect trade effects were then calculated. These consist primarily of oil-induced price increases in developed economies' exports to the non-oil LDCs. The 0.5-percent reduction in developed countries' GNP would also reduce non-OPEC LDC export volume, although all or part of the loss of revenue was assumed to be offset as LDC exporters raise their prices to compensate for oil-related increases in production costs of manufactured goods. For the purpose of this analysis, we assumed that the volume of non-oil LDC imports was not affected by the oil price rise. To the extent this assumption proves faulty the erosion of the trade balances of industrial countries would be greater than we have calculated. (Confidential)

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MOST IMPORTERS UNLIKELY TO APPEAL FOR OPEC RESTRAINT

No foreign government is likely to beat the drums against an oil price increase despite the potential negative impact on its economy. Most developed countries are convinced that they would have no influence on OPEC by themselves and very little more by acting in concert with the United States. The non-OPEC LDCs, individually or as a group, will not take an open stand against OPEC and certainly would not join in a US appeal, even though many might privately welcome it.

Developed Countries

The developed countries maintain that only the United States can have an impact on OPEC decisionmaking. They believe that the key to US influence is its role in the Arab-Israeli dispute. The West Europeans and Japanese see their own Middle East policies as more even-handed than those of the Americans but have little hope of influencing thinking in Washington. These governments also cite increasing US demand for imported oil as the chief economic pressure behind an OPEC price rise. In their view, the lack of an effective US national energy policy undercuts any appeal to OPEC to hold the line on prices.

Since government attitudes toward OPEC actions are shaped more by political than economic realities, the severity of the economic impact of an oil price increase is a poor guide to a country's political response. To date, none of the developed country governments has indicated interest in a concerted move against a price hike. While we anticipate that several oil importing countries would be willing to join the United States in public and private appeals to OPEC countries, a number of others would stand aloof. The United Kingdom and Norway, which have their own oil, would be unlikely to do anything.

Among the major foreign industrial nations, West Germany, Japan, and Canada

probably would be receptive in varying degrees to a US initiative to forestall an OPEC price rise:

The ***West Germans***, who have been protected from the full impact of OPEC price rises by the appreciation of the Deutschemark, believe that an appeal would carry little weight, particularly in view of the inability of the United States to curb demand for imported oil.

The ***Japanese***, determined to avoid even the appearance of confrontation with their Arab suppliers, probably would endorse a demarche only if it were supported by numerous other developed countries.

The ***Canadians*** have few political hangups regarding the Middle East and probably would urge OPEC restraint; Ottawa already is dipping into general tax revenues to subsidize prices in oil-short eastern Canada.

Among the smaller developed countries with large current account deficits, Austria and Denmark would likely support an appeal to OPEC. Both are relying on export growth to pull them out of the doldrums and thus fear the adverse effect of an oil price rise on their trading partners. Portugal might be persuaded to go along but would need prodding. Lisbon is likely to be extremely cautious in the wake of Arab reaction to its recent recognition of Israel.

A sizable group of developed countries, most of which already are contending with serious balance-of-payments problems, see no advantage to a consumer country plea to OPEC:

The ***French*** probably would shun what they consider a futile gesture, which inevitably would smack of confrontation.

The ***Italians*** want to preserve their perceived role as a bridge between the Middle East and North Africa and Western Europe and would be reluctant to join any action that might jeopardize this role or the numerous barter deals Italian firms have arranged with OPEC countries.

The ***Spanish***, who do not recognize Israel and took a pro-Arab stance during the 1973 war, probably could not be persuaded of the value of an appeal to OPEC; Madrid has received about $150 million in loans from the Saudis this year and does not want to close the door to future borrowing.

The ***Turks*** believe that OPEC has the right to set prices where it will, and they would be unlikely to work against a price rise for fear of losing what few benefits they receive from their large concessionary oil contract with Iraq.

Two developed countries—the United Kingdom and Norway—probably consider silence the best policy. Norway already is a net oil exporter, and the United Kingdom is expected to become a net exporter by 1980; both have consistently pegged their own oil prices to those of OPEC.

Non-OPEC LDCs

Despite private grumblings about OPEC stinginess, most non-OPEC LDCs are willing to suffer another 10-percent oil price rise without public protest. Any appeal to OPEC would be independent of the developed countries' positions; the non-OPEC LDCs would not risk their prized political solidarity by joining a US-sponsored effort:

Brazil, which has the largest oil bill among the LDCs, has been courting Arab favor and capital since the 1973 embargo and probably would once again press OPEC for preferential treatment for all LDCs.

India already has privately expressed concern to OPEC members about a further oil price increase but is unlikely to speak out publicly against countries that regularly provide substantial loans. Officials in New Delhi maintain that they have no right to criticize OPEC because its members were so long "exploited by colonial powers."

Mexico, a net oil exporter, would tacitly support a price hike by OPEC and then follow suit.

The small African states do not want to offend OPEC countries and thereby risk losing the little aid that they receive, even though their prospects for getting more assistance are not all that good. Prosperous Asian countries such as South Korea and Taiwan would not want to diminish their small influence in LDC circles by joining in a US-sponsored appeal to OPEC. (Confidential)

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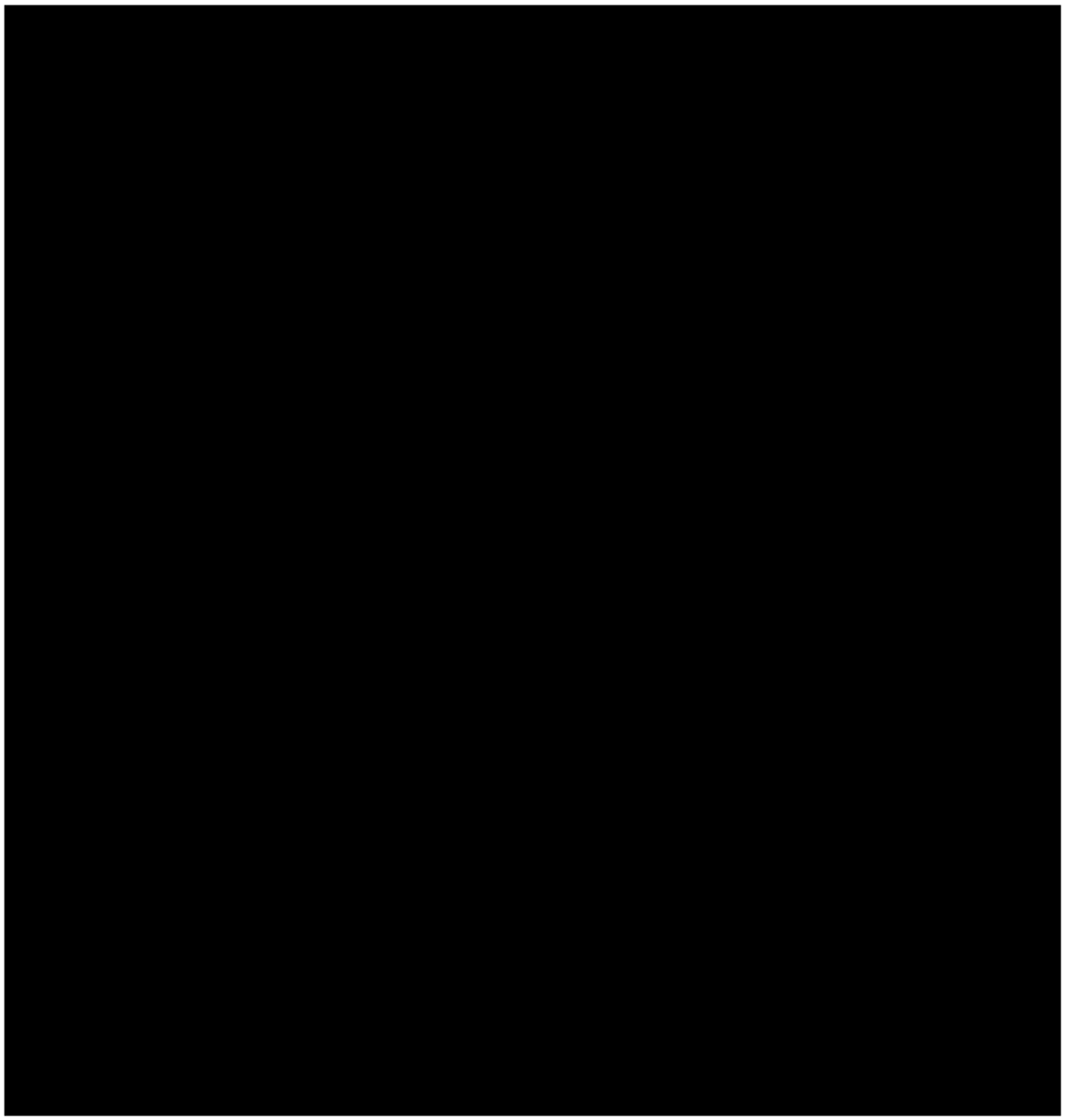

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FRANCE: ENERGY CONSERVATION

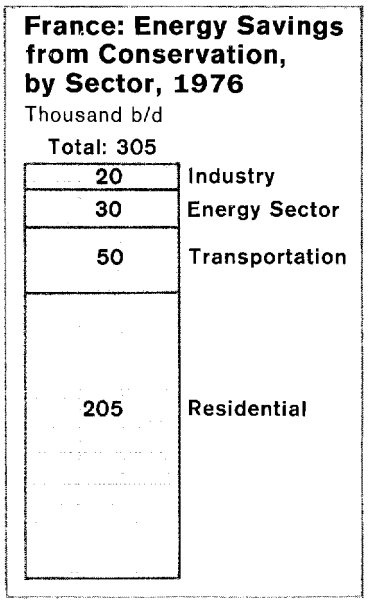
This is the second is a series of articles on energy conservation.

France is a leading energy saver among the major industrialized countries. A

strong public conservation program combined with higher energy prices resulted in about a 305,000 b/d oil equivalent energy savings in 1976–8 percent below what consumption would have been in the absence of higher fuel prices. Energy conservation in France in 1976 was somewhat above the average for OECD countries that we estimated in "The International Energy Situation: Outlook to 1985," April 1977. Moreover, relative energy savings in France amounted to nearly twice the UK performance. The government's long-term goal is to achieve a 900,000 b/d energy saving in 1985–about 15 percent of expected consumption.

The latitude given policymakers under the French presidential system has enabled Paris to implement an impressive energy conservation program since the 1973 oil crisis. Moreover, unlike most other countries that have lifted the draconian measures imposed during the embargo, Paris has continued to strengthen its program. In July, Paris announced plans to spend $200 million next year to reduce energy consumption in the industrial sector, which has lagged other sectors in savings. The government also decided to tax industrial energy users and drop incentives to consumption now offered by electric and gas utilities.

The French conservation program aims mainly at reducing oil use, especially in the residential sector, where the bulk of the energy savings has occurred. The oil industry has criticized the government's one-sided attack on oil and argued for equal treatment of other energy sources. Oil accounts for over 60 percent of total energy consumption.



France is the only major developed country to ration heating oil. Since mid-1974 heating oil sales have been limited to 95 percent of the previous year's sales plus an adjustment for a natural expansion due to an increased housing stock. The rationing system is supported by fines. In addition, quantities delivered above the official limits are deducted from individual company quotas the following year. Heating oil use in 1977 will probably run about 20 percent below 1973 levels.

The government has also set an upper temperature limit of 20°C in all homes, apartments, offices, and public buildings since 1974. Government agents are authorized to make spot checks and issue fines to offenders.

In September 1975 the government ordered that all new multiple-unit buildings with a central heating system must be equipped to permit an allocation of individual heating costs. Moreover, all buildings must be equipped by September 1977 with devices to permit individual allocation of hot water costs. The government has set insulation standards in all new buildings and implemented financial incentives to promote increased insulation in existing buildings.

Major government efforts to encourage conservation in the industrial sector include regulations and financial incentives. In September 1975 the government imposed a special levy on heavy fuel oil consumption above a certain limit equivalent to $4.70 a barrel, about 40 percent of the current spot market price. Industries making energy-saving investments are entitled to financial aid of up to 25 percent of the project. The government subsidizes up to 50 percent of a demonstration project's cost.

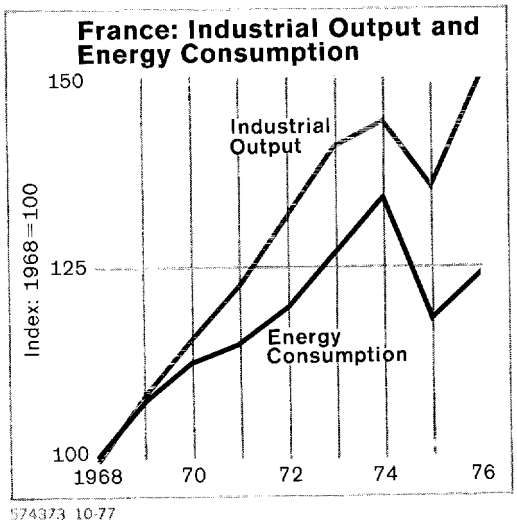
The most visible part of the government's conservation program is the annually announced oil import ceiling. The ceiling has been used more as a goal or success indicator, however, than a conservation measure. The government has yet to restrict imports to meet the limit. In fact, to meet the 1976 ceiling of $10.7 billion the government juggled the books. Prime Minister Barre announced in February 1977 that crude oil that entered France in the last 10 days of 1976 (prior to the oil price increase) for stocking by refiners would be considered part of the 1977 ceiling of $11.1 billion.

In contrast, France's finance minister fined Electricite de France—the state-controlled power utility—the equivalent of about $1 million for violating government limits on oil consumption last year. The fine occurred despite utility claims that they had to step up production of electric power in oil-fired power plants sharply because a severe drought last summer had depleted hydroelectric power sources. The ministry acted on a complaint of the state energy agency that accused the utility of violating a government edict that industrial fuel consumption in 1976 be held at 1973 levels. Moreover, the 1977 limit on heavy fuel use by the utility is 20 percent below last year's consumption level.

Growth, Consumption, and Savings

In 1976 France's energy consumption was 1 percent below pre-embargo 1973 levels. Oil use alone registered a 6-percent drop. Had the trend in energy use continued at the 1968-73 annual rate of 6.6 percent, energy consumption would

have averaged 4.3 million b/d instead of 3.6 million b/d actually consumed. The difference reflects both energy savings from conservation and the economic recession. Last year, real GNP was only 8 percent above the 1973 level; if the long-term annual growth rate of 5.9 percent had continued, GNP would have increased 19 percent from 1973.



Prior to 1973 energy use by sector had registered mixed trends. Between 1968 and 1973 energy use by (a) the transportation sector, (b) the energy sector, (c) the industrial sector, and (d) the residential, commercial, public services, and agricultural sector rose at an average annual rate of 8.5 percent, 6.7 percent, 4.9 percent, and 7.3 percent, respectively. The rapid growth in energy use by the transportation sector stemmed from a sharp rise in registered motor vehicles, rising real disposable income, and a drop in the real price of gasoline.

Moderate growth in industrial energy consumption was due in part to a shift away from energy-intensive products. From 1968 through 1973 total industrial output rose at an average annual rate of 7.2 percent while the energy-intensive steel industry grew by 3.9 percent annually. This trend along with technological improvements is partly responsible for a 2.2 percent annual decline in energy consumption per unit of industrial output between 1968 and 1973. Efficiency trends in most other sectors deteriorated. The amount of energy used per dwelling, for example, grew steadily during the period, stemming partly from an increase in the use of energy-intensive appliances.

Savings Record by Sector

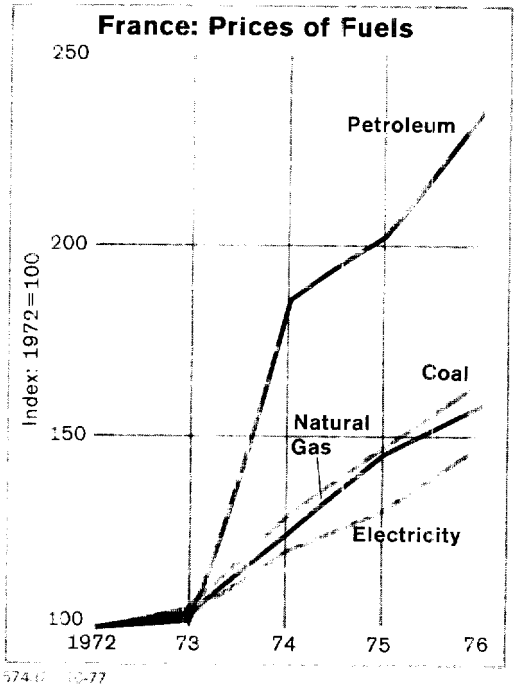
We estimate energy savings from conservation amounted to about 305,000 b/d last year. This estimate is derived from a sector-by-sector analysis of consumption and efficiency patterns since 1973. To determine the amount of savings in each sector, we assumed that the 1968-73 efficiency trends would have continued through 1976 in the industrial, energy, and residential sectors with or without the rise in fuel costs. In estimating savings in the transport sector, we related fuel consumption per registered motor vehicle to changes in real disposable income.

France: Energy Consumption by Sectors, 1976

	Industrial	Transportation	Residential, Commercial, Public Services, Agricultural	Energy	Total
	Thousand b/d Oil Equivalent				
1968-73 trend	1,370	810	1,475	670	4,325
Growth adjusted	1,180	720	1,395	560	3,855
Actual	1,160	670	1,190	530	3,550
Implied saving	20	50	205	30	305
	Percent				
Savings as a share of growth adjusted consumption	1.7	6.9	14.7	5.4	7.9

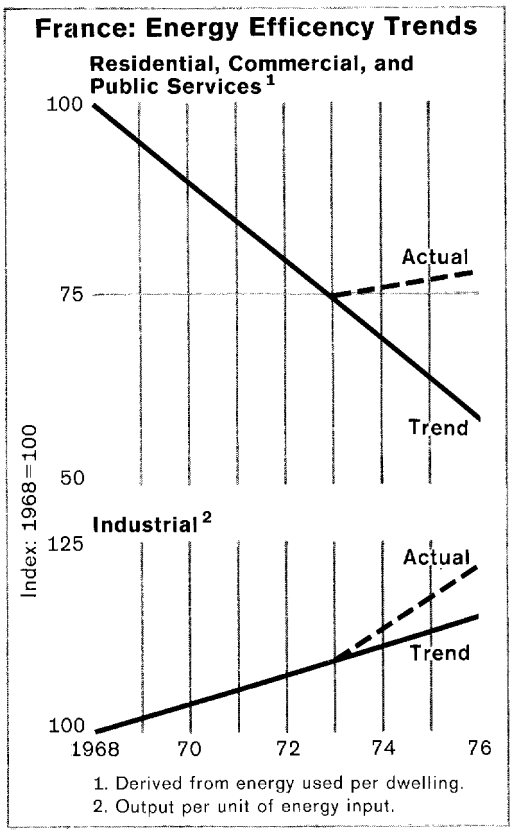
Residential, Commercial, Public Services, and Agricultural Sector

Savings in the residential, commercial, public services, and agricultural sector in 1976 amounted to an estimated 205,000 b/d; 15 percent below what would have occurred in the absence of higher fuel prices and government measures. Savings in this sector far outpaced achievements in all other major sectors. Most of the saving occurred in the residential sector, which accounts for nearly 85 percent of total consumption.



This estimate is based on trends in energy use per square meter of living space adjusted for temperature. From 1968 through 1973 this ratio had been increasing at an average annual rate of 5 percent, largely reflecting an increase in the use of energy-using appliances. In 1976 this ratio was 7 percent below 1973 levels. An agressive government conservation program along with higher fuel oil prices are mainly responsible for the impressive savings record. Since mid-1974 the government has rationed heating oil sales and set a temperature

limit in homes, offices, and public buildings—both supported by fines. Moreover, the government has adopted attractive financial incentives to promote increased insulation. From 1973 through 1976 the weighted average retail price of energy used by the residential sector jumped by more than 70 percent. Heating oil, which supplies about 60 percent of residential energy requirements, rose by roughly 90 percent during the period to 53 cents per US gallon. Home heating oil prices continued to rise in 1977 and by March were 59 cents per US gallon.



Industrial Sector

The industrial sector saved an estimated 20,000 b/d in 1976, less than 2 percent of consumption. Higher energy prices and to a lesser extent government-financed incentive programs were the primary factors behind the energy saving. The weighted average retail price of energy used by industry rose 125 percent between 1973 and 1976. Oil accounts for about 40 percent of energy required by the industrial sector. The impact of financial incentives on conservation has likely been small thus far. It will take a few years before pilot energy saving projects are adopted industry wide. The small savings in 1976 are primarily the result of low cost investments and better maintenance. Investments made in 1976 amounting to about $200 million will start to show a return this year.

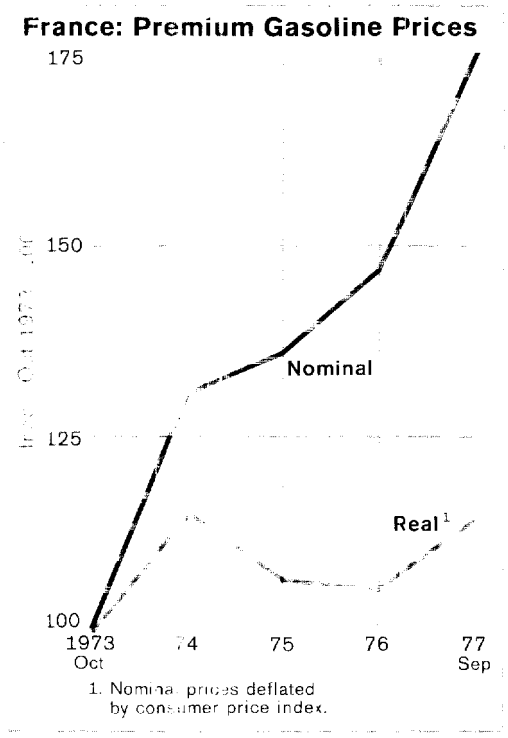
Paris is disappointed with the modest amount of industrial energy saving achieved thus far. Industries claim that the recession, a lack of funds, and the high cost of borrowing have caused a postponement of investments not directly related to production capacities. The energy-intensive iron and steel industry in 1976, for example, used 2 percent more energy to produce a ton of steel than in 1973, thus reversing the pre-embargo trend. Between 1968 and 1973 the iron and steel industry

energy output ratio had been dropping at an annual rate of 0.5 percent. This industry accounts for roughly 25 percent of industrial energy use. The loss in efficiency in the industry since 1973 is mainly the result of a drop in output, which adversely affects the efficiency of heating installations. Iron and steel output last year was nearly 10 percent below 1973 levels.

Transportation Sector

The transportation sector registered energy savings of about 50,000 b/d in 1976.* This saving is roughly 7 percent below what would have occurred in the absence of higher prices, and equals the savings achieved in the United Kingdom. To calculate the savings, we related energy use per registered motor vehicle to changes in real disposable income. Higher motor fuel prices, better vehicle maintenance, and a change in driving habits were responsible.

From late 1973 to yearend 1976 retail premium gasoline prices rose by two-thirds, reaching $1.71 per US gallon. During this period taxes rose nearly 50 percent to over $1.00 per US gallon. Last year the amount of energy consumed per registered vehicle was 7 percent below 1973 levels. From 1968 through 1973 this ratio was climbing at an annual rate of 3 percent.



Despite the savings, the amount of fuel used per vehicle rose last year for the first time since 1973. A small decline in the real price of gasoline was partly

*In measuring energy savings in the transport sector we compared actual energy use with consumption obtained by assuming that the pre-embargo relationship between energy use per registered motor vehicle and real disposable income remained the same. Road transport accounts for about 85 percent of energy consumption in the transportation sector.

reponsible for this development. The real price of premium gasoline, however, turned upward again from January-June this year because of higher crude oil prices and a tax increase of 5 cents per gallon.

France: Retail Gasoline Taxes

US cents per gallon

	Premium	Regular	Diesel Fuel
Oct 1973	65	69	39
1974	71	75	44
1975	73	77	44
1976	79	84	47
Jun 1977	101	108	54

Energy Sector

Savings in the energy sector totaled an estimated 30,000 b/d last year. About 10,000 b/d were saved by reducing energy losses in electric power generation. Between 1968 and 1973 the amount of energy loss per unit of fuel input dropped at an average annual rate of 2 percent. Had this trend continued, the ratio in 1976 would have been 6 percent below the 1973 level instead of the 16 percent drop actually achieved. Although the precise amounts cannot be quantified, some additional savings were achieved from the continue shift to natural gas, which burns more efficiently than coal and oil.

Savings of about 15,000 b/d were achieved in primary energy production, conversion, and transportation of fuels. Most of the savings was achieved in bunker usage. Because of slow steaming, bunker consumption declined 5 percent since 1973 while export volume rose 15 percent. Savings in energy production, conversion, and internal transportation were small last year. The amount of energy used in these industries remained proportional to final energy consumption. Between 1968 and 1973 this ratio declined at an average annual rate of 0.3 percent. In 1976 the ratio was less than 1 percent below the pre-embargo trend, indicating a marginal gain in efficiency.

Despite large investments by oil refiners, savings by this sector last year averaged only about 5,000 b/d. In 1975 refiners invested $30 million to save energy and fight pollution. Savings by the refining industry have been hindered by sharply reduced capacity utilization, which fell from 86 percent in 1973 to 69 percent last year. Savings should mount rapidly as higher demand raises operating refinery rates. In the United States, for example, where operating refinery utilization has remained high, refiners have reaped impressive energy savings of more than 12 percent.

Outlook

The prospects for France reaching its 1985 savings goal of 900,000 b/d are good. France's limited resource base gives it few alternatives in the short or medium term in reducing its oil dependence. Consequently, it will likely continue to be

committed to conserving energy. In July, for example, Paris strengthened its conservation program by dropping incentives to use electricity and by penalizing builders of dwellings supplied by electricity.

Additional savings will be more difficult than the low-cost, good-housekeeping type measures already made. Future investments will undoubtedly be less profitable, requiring the inconvenience of shutting down some installations that have not been fully amortized. Slow economic growth will also hinder energy saving investment projects.

Nevertheless, Paris recognizes that an acceleration in energy saving investment will be required to meet its 1985 goal. The government is particularly disappointed in the modest savings attained by the industrial sector thus far. To spur efforts in this sector, Paris recently allocated $200 million next year to industries making energy-saving investments. Moreover, Paris will implement a tax of 1 to 3 percent on energy used by industry, effective 1 January 1978.

Appendix

France: Government Conservation Program

The French energy program has placed more emphasis on energy conservation than most other major industrialized countries. Faced with a poor energy resource base, Paris believes that energy conservation together with nuclear power is the most efficient means of increasing French energy independence and security of supply. In 1976 France imported about 75 percent of its energy supplies.

Energy Conservation Agency

In November 1974 the government created an Energy Conservation Agency (ECA) answerable to the Ministry of Industry and Research and administered by an executive committee chaired by the Delegate General for Energy. With a staff of 50, the agency has the following major functions:

- To propose and administer conservation programs.
- Advise the general public on ways to save energy.
- Launch energy-saving demonstration projects.
- Provide assistance for certain energy-saving projects.

The goal of the agency is to reduce 1985 energy use by 900,000 b/d oil equivalent—15 percent below the level forecast prior to the energy crisis. To meet this goal, the agency has a three-pronged attack on all major energy sectors including actions designed:

- To reduce energy waste.
- Encourage investment in energy-saving devices.
- Promote research and development in the energy conservation field.

Residential, Commercial, and Public Sector

The brunt of the government's conservation policy is on heating requirements. The Energy Savings Act of 1974 contains two provisions aimed at the residential sector: one authorizes the government to take measures for controlling or allocating energy products and for banning advertising; the other authorizes it to adopt measures to reduce consumption specifically for heating purposes.

The ECA launched a publicity campaign in 1975. Six films appeared on television a total of 65 times and six advertisements appeared in daily newspapers and magazines (a total of 250 times). This campaign was continued in 1976 and 1977. The ECA conducts a telephone answering service allowing the public to obtain energy conservation information.

Since mid-1974 the government has rationed heating oil sales. Oil companies' sales are limited to 95 percent of the previous year's sales plus an adjustment for a natural expansion due to an increased housing stock. The rationing system is supported by fines. In addition, quantities delivered above the official limits are deducted from individual company quotas the following year. The quota was met in 1974 but exceeded by 2 percent in 1975/76 heating year (1 July-30 June). Preliminary data indicate sales in 1976/77 heating season were 5 percent below the quota. The quota for 1977/78 is tentatively set at only 2 percent above last year's consumption level.

In December 1974 the government set an upper temperature limit of 20°C in all homes, apartments, offices, and public buildings. Agents of the Measuring Instruments Service are authorized to make spot checks and through 1976 nearly 21,000 checks had occurred. Fines of $120 to $200 can be issued for infractions of temperature limits. A total of 370 warnings or fines were issued in 1975.

In September 1975 the government ordered that all new multiple-unit buildings with a central heating system be equipped to permit an allocation of individual heating costs. Moreover, all multiple-unit buildings had to be equipped by September 1977 with devices to permit individual allocation of hot water costs.

Transport Sector

Because gasoline, the major fuel used in the transport sector, had been restrained by a high tax prior to the oil crisis, Paris believes the potential for conservation in this sector is limited. Moreover, because energy use in this sector is relatively small, a 50-percent drop in energy use would result in only a 9-percent drop in total energy use. Nevertheless, the government's 1985 energy-saving target is 120,000 b/d.

Government efforts to promote savings in this sector include a publicity campaign and the promotion of public transportation. The ECA furnishes energy-saving information to the public indicating ways of reducing consumption. The government has circulated several hundred thousand pamphlets indicating the fuel efficiency of all motor vehicles sold in France.

Since late 1973 the tax on regular gasoline has jumped by 55 percent to 101 cents per US gallon. The automobile property tax is now based on fuel efficiency as opposed to horsepower as in the past and the government has set speed limits. Because the speed limits are excessive, 129 kilometers per hour on major highways, their impact on consumption has been negligible.

In liaison with specialized laboratories the ECA has established methods for testing fuel-saving devices and measuring fuel efficiency. To receive approval from the ECA, a saving device must improve efficiency by 8 percent. Since April 1976 the standard fuel efficiency of private automobiles must be included in all advertising referring to fuel consumption, power, and performance.

To promote public transportation, the government in July 1974 reduced the VAT (value-added tax) on public transportation from 17.6 percent to 7 percent. At the same time the government raised the gasoline tax.

The government encourages private companies and institutions to research and develop energy-saving automobiles and fuel. Last May, Elf Aquitaine began marketing a new more efficient gasoline called Elf-Moins. Tests have indicated that the properties of a new additive result in a 6-percent energy saving. Elf Aquitaine devotes about $5 million, or 10 percent, of its research and development budget to energy saving.

Industrial Sector

The 1985 energy-saving target for industry is 320,000 b/d oil equivalent. This saving will require a 25-percent drop in energy consumption per unit of output. To attain this objective the ECA estimates that energy investment spending must total $4 billion from now until 1985.

Government efforts to encourage conservation in the industrial sector include a publicity campaign, regulations, and financial incentives. The aim of the publicity campaign is to increase awareness of the need to conserve and to inform industry of existing or new energy-saving techniques, processes, or products. The agency advises companies on the organization of conservation training courses and, in association with specialized laboratories, assesses the performance of energy-saving equipment.

In May 1974 the government ordered authorized experts to examine energy use in major industrial plants. More than 100 experts have been appointed to assess about 4,000 establishments. The aim of this measure is to force industry to take a critical look at potential energy savings. In February 1975 the government established minimum yields required for boilers.

One of the more visible conservation measures is a special levy imposed in September 1975 on heavy fuel oil consumption above a certain quota and below a certain quota. The tax of $4.70 a barrel is equivalent to about 40 percent of the current spot market price for heavy fuel oil. The levy is partly responsible for the 4-percent drop in heavy fuel oil use since 1973. Individual plants pay the tax on consumption above 87 percent of 1973 levels. The tax is not imposed on consumption above 112 percent of 1973 levels so as not to penalize growing industries. To avoid red tape, the tax is not imposed on plants that consume less than 6,700 barrels annually. The total tax may not exceed 0.4 percent of a plant's annual sales. Revenue from the levy helps subsidize energy-saving investments. The tax may be wholly or partially suspended for five years if plants undertake Sectoral Agreements established by the government industry and trade unions to make energy-saving investments.

The standard contract Sectoral Agreement is for five years and sets:

- 1980 conservation targets.
- Financing provisions.
- Types of investments qualifying for aid.
- Provisions for metering energy use in plants.
- Procedures for periodic consultations with ECA officials on choices of energy sources.

The maximum rate of aid was raised from 15 percent to 25 percent this year. In 1976, 17 agreements were concluded with trade organizations covering more than 1,000 plants and representing 65 percent of industrial energy use. The goal of these agreements is to achieve an annual saving of 100,000 b/d by 1980.

The government has set insulation standards on all new buildings. Financial incentives have been adopted to promote increased insulation in existing dwellings. Taxpayers are allowed a tax credit of up to $1,400 plus $200 per person to cover insulation costs.

Other energy conservation measures in this sector include bans on:

- Interior lighting of unoccupied buildings.
- Lighting advertising signs from 10PM to 7AM.
- Advertising of portable heaters.

In the public sector each ministry is required to develop its own conservation program. To encourage conservation, the budget for heating is separated in each ministry and the purchase of automobiles is subject to approval by the Ministry of Industry and Research.

The ECA promotes new technology products and processes through a demonstration projects scheme. The following are criteria for the scheme:

- It must be a full scale project.
- The prospects of profitability must be sufficient.
- It must be suited to such general use that appreciable energy savings can be expected on a national scale.

The government subsidizes up to 50 percent of a project's costs (the average is 20 percent). To date 54 of 80 demonstration projects have been launched in industry. The projects represent a total investment of about $32 million, including subsidies of $7 million. The government estimates that these projects will save nearly 200,000 b/d annually by 1985. At yearend 1976, 12 projects had been completed with expected energy savings achieved or bettered in 10 of the projects.

Since December 1974 the ECA has banned all advertising aimed at encouraging energy consumption. In 1975 a special commission set up to monitor advertising met 11 times and handed down over 100 opinions, shown in the accompanying tabulation.

	Total	Positive	Negative
Opinions	40	29	11
Applications ..	28	15	13
Warnings	36		

The advertising law is supported by a prison sentenence of from 3 to 12

months, and a fine of $100 to $5,400, or both to repeat offenders. In 1975, two citations were issued.

France Toughens Program

Paris has continued to strengthen its conservation program. The budget for administering the government's program doubled in 1977 to $13 million. In May 1977 a series of new conservation measures were approved, including controls on water heating and increased insulation standards in new construction. The Industry Ministry expects the new measures will save 100,000 b/d oil equivalent annually.

In July the government announced plans to spend $300 million next year to reduce energy consumption. Two-thirds of this will be available to industries that intend to make energy-saving investments. The government has also decided to tax industrial energy users and drop incentives to consumption now offered by electricity and gas utilities. A tax of 1 to 3 percent on energy used by industries will start on 1 January 1978, but companies that make energy-saving investments will be exempted. These new measures stem from the government's disappointment with industrial energy savings.

In addition to adjusting utility rates to remove advantages of increased consumption, builders of dwellings supplied entirely by electricity will be penalized. A $500 tax will be imposed on new apartments and $700 on new private homes. From June 1978 the estimated heating cost will be required in all advertisements of new homes.

The government also plans to implement recommendations of a special commission that include utilization of waste heat from the thermal power plant at Cordemais in the Nantes-Saint Nazaire region and the Brigey Plant in the Lyon region and installation of gas turbines to supply the urban heating system in the northern Paris suburbs. (Confidential)

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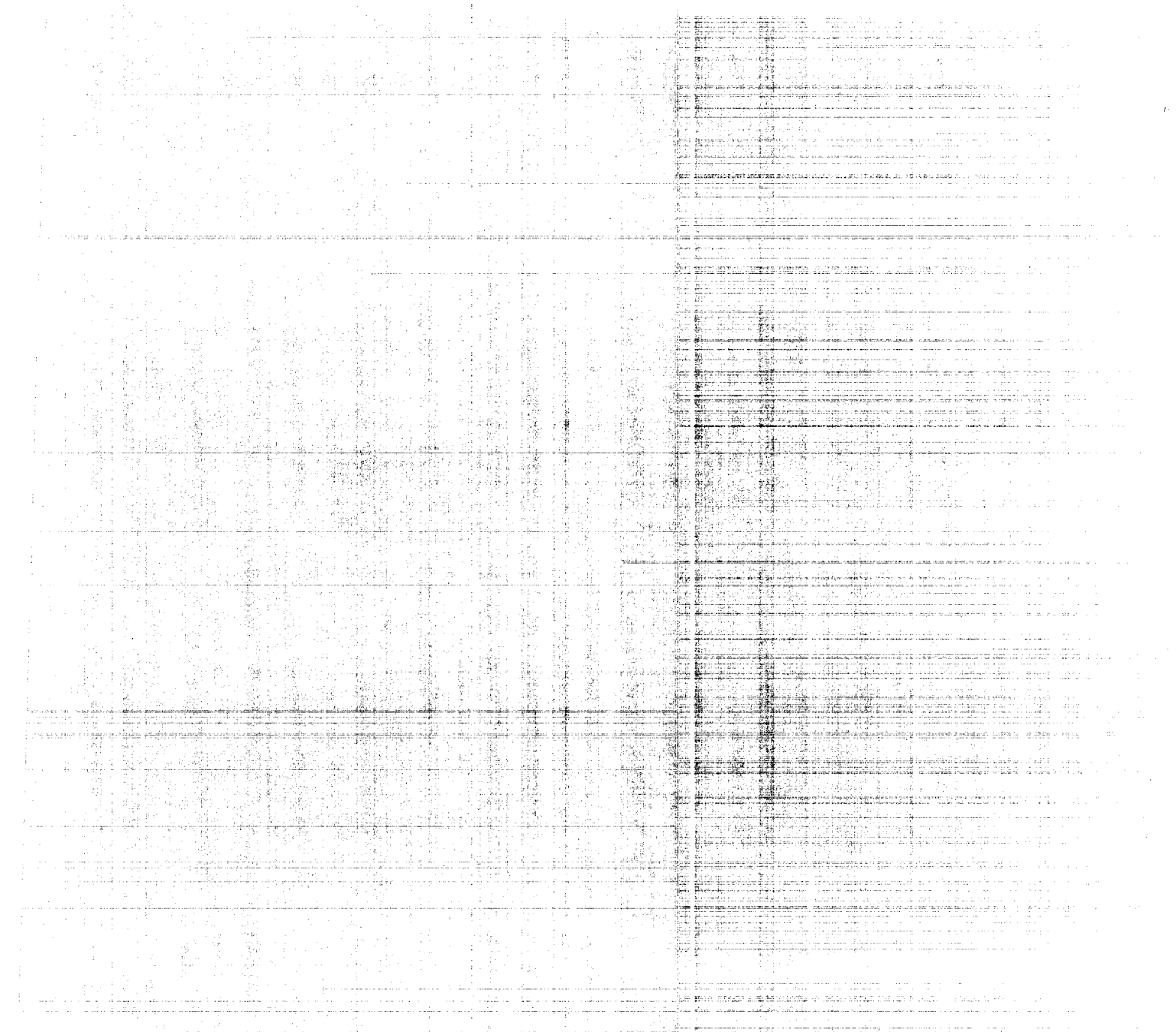


Secret

National
Foreign
Assessment
Center

International Energy Biweekly Statistical Review

16 November 1977

ER IOD SS 77-023

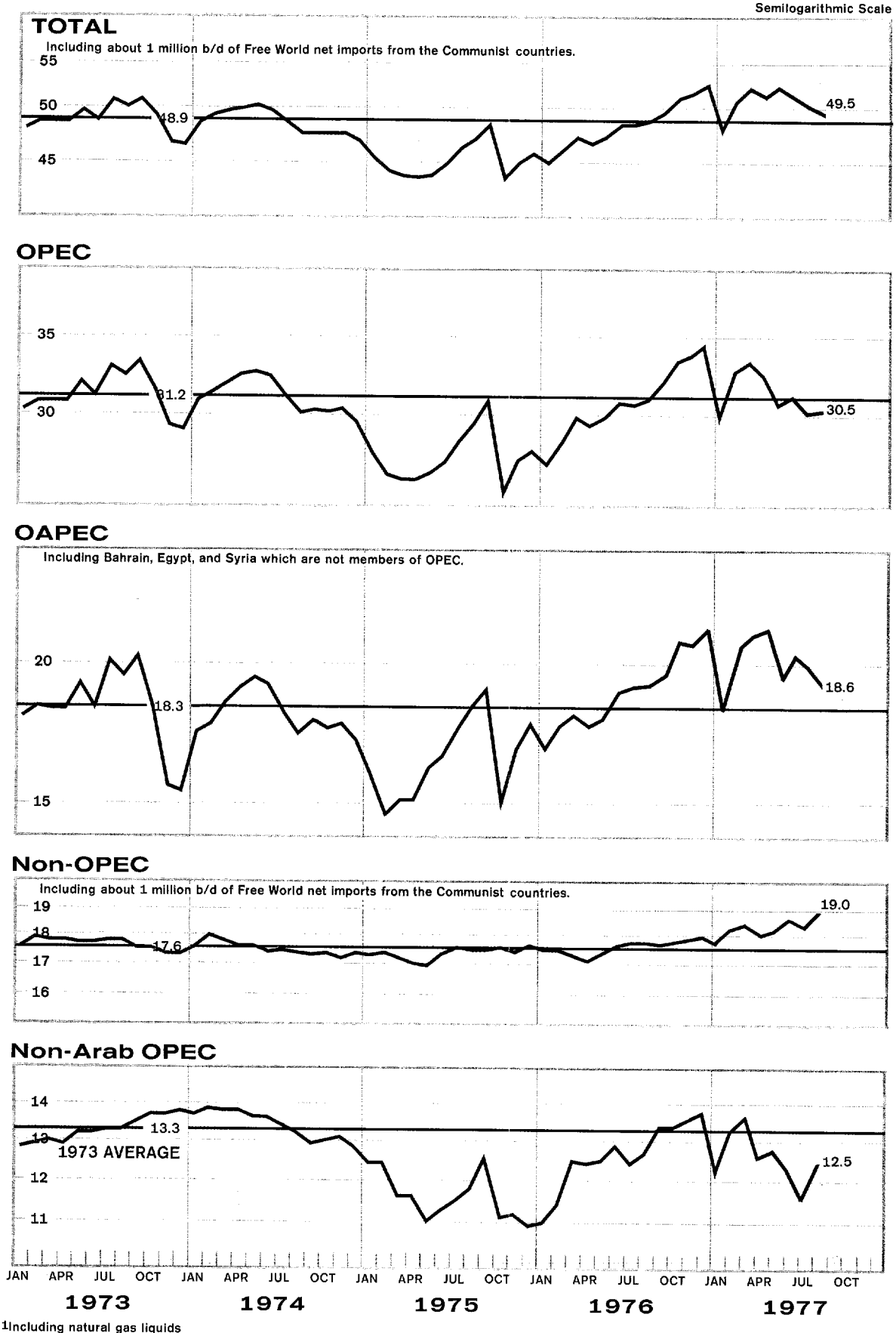
Approved For Release 2001/04/11 : CIA-RDP79B00457A001100010001-0

STATISTICAL REVIEW

Approved For Release 2001/04/11 : CIA-RDP79B00457A001100010001-0

FREE WORLD OIL PRODUCTION[1] MILLION B/D

Semilogarithmic Scale



[1]Including natural gas liquids

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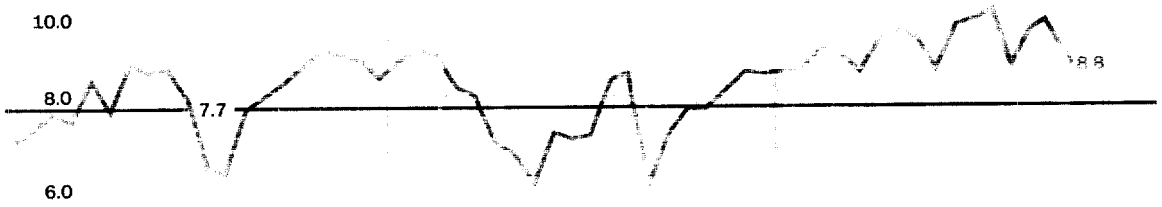
OAPEC OIL PRODUCTION[1] MILLION B/D

Saudi Arabia

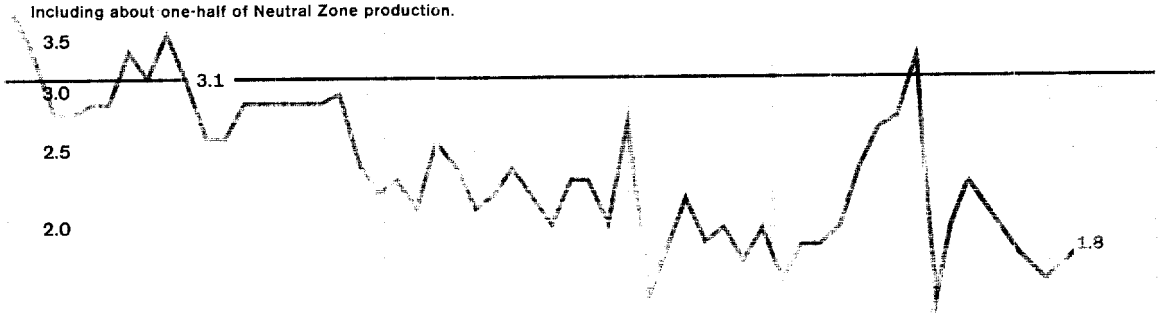
Semilogarithmic Scale

Including about one-half of Neutral Zone production.

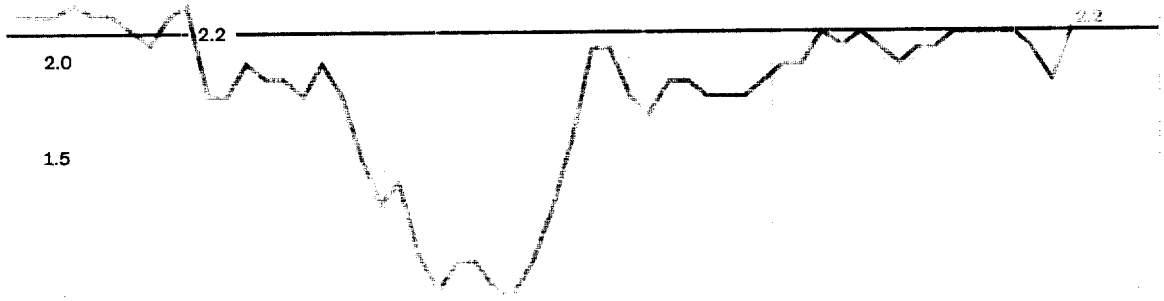


Kuwait

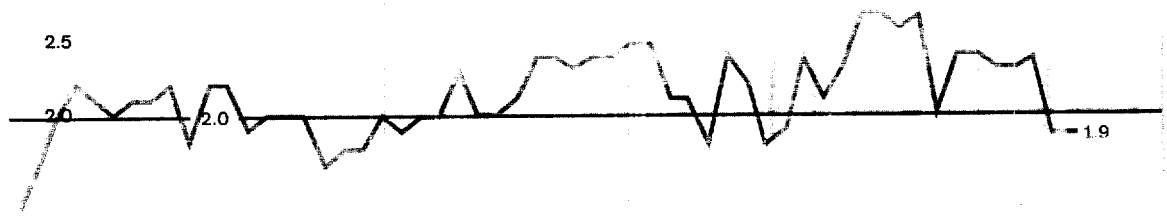
Including about one-half of Neutral Zone production.



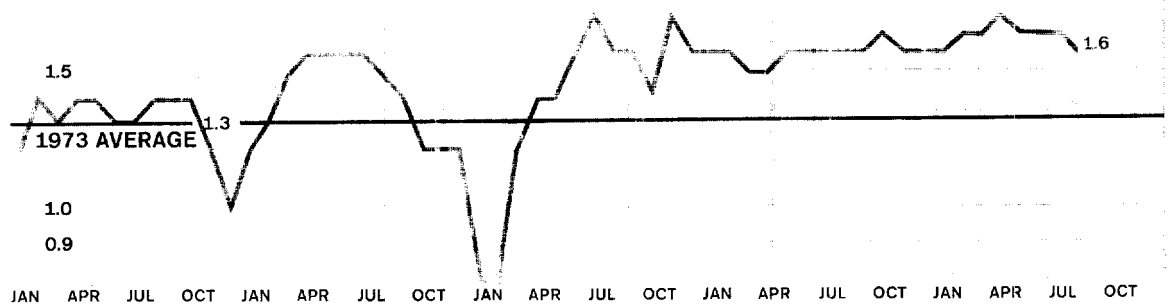
Libya



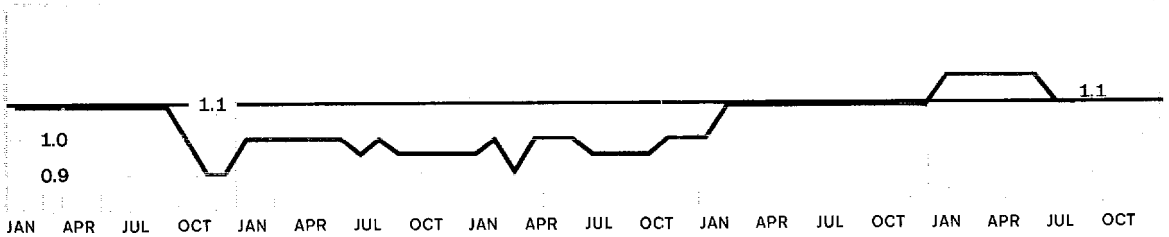
Iraq



Abu Dhabi



Algeria

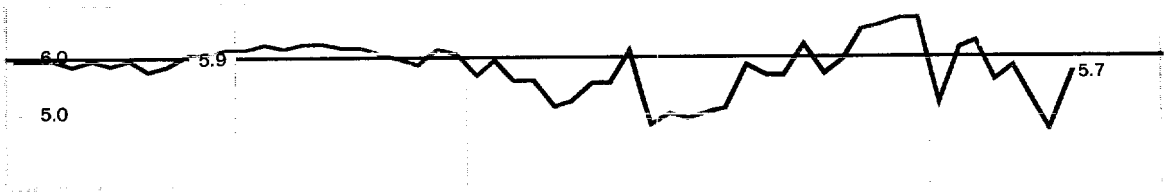


[1]Major producers

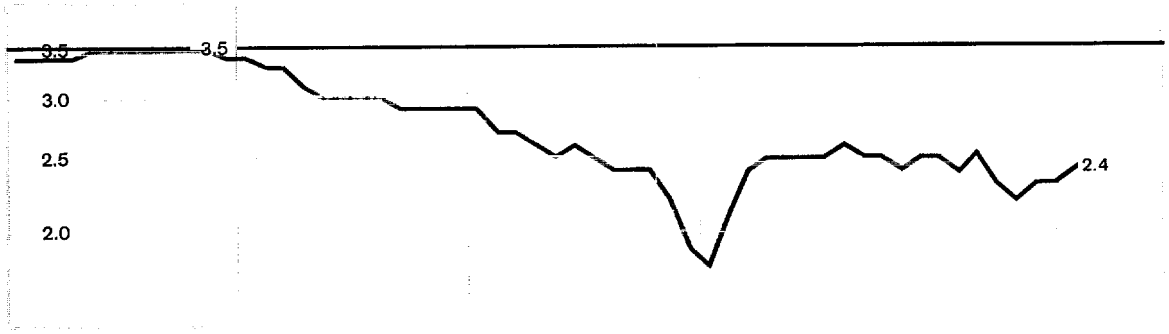
NON-ARAB OPEC OIL PRODUCTION[1] MILLION B/D

Iran

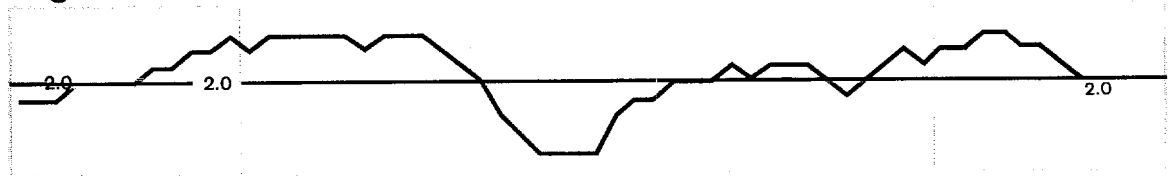
Semilogarithmic Scale



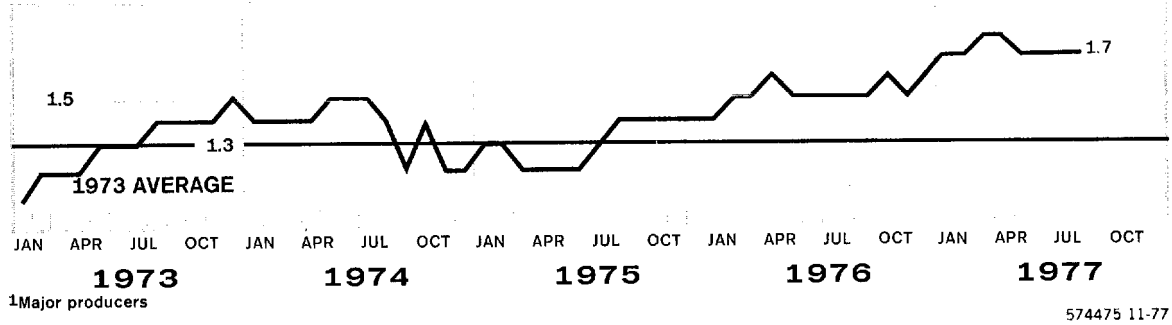
Venezuela



Nigeria



Indonesia



[1]Major producers

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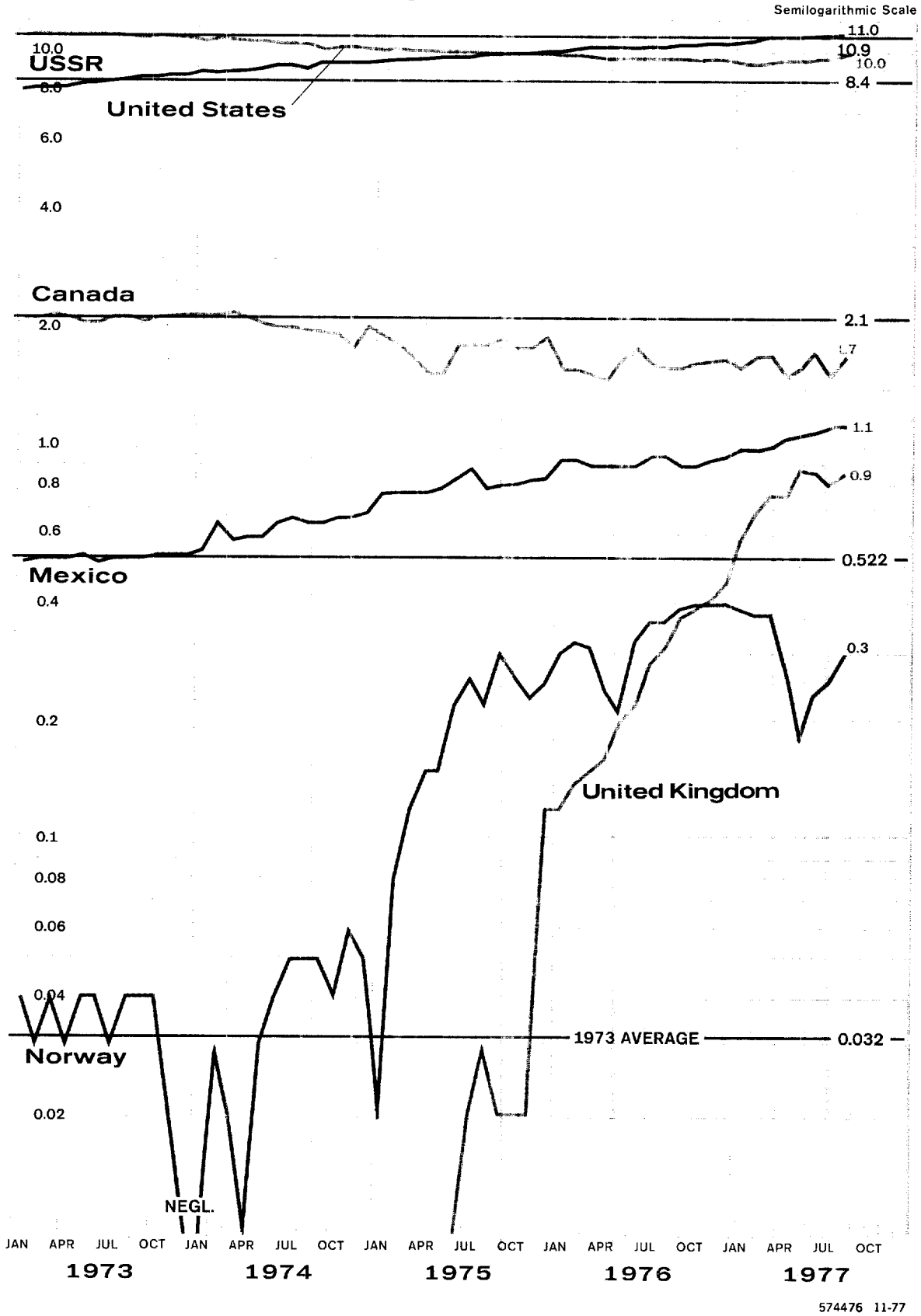
FREE WORLD AND USSR OIL PRODUCTION MILLION B/D



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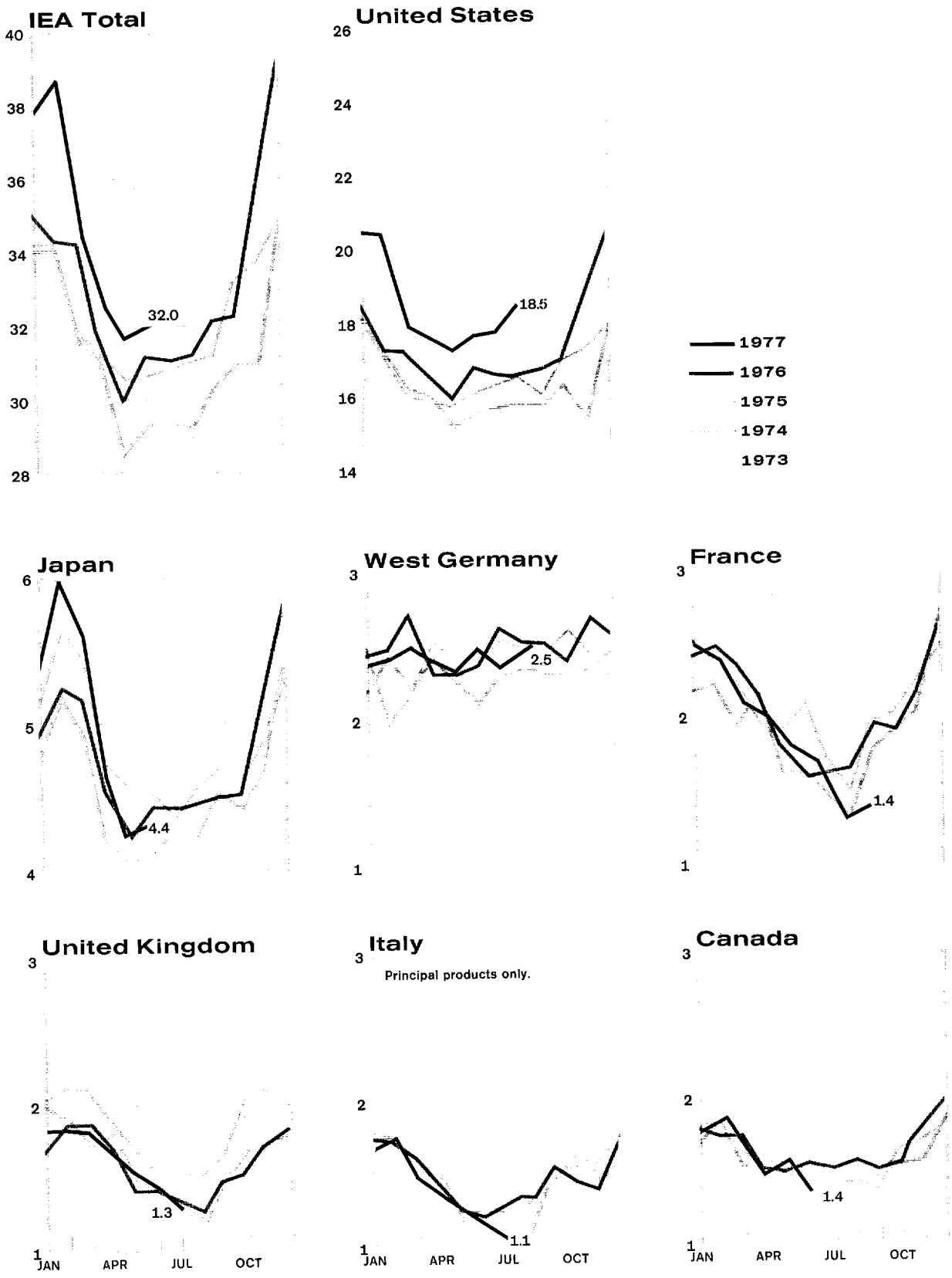
INLAND OIL CONSUMPTION[1] MILLION B/D



Principal products only.

[1]Except for the United States, excluding bunkers, refinery fuel, and losses.

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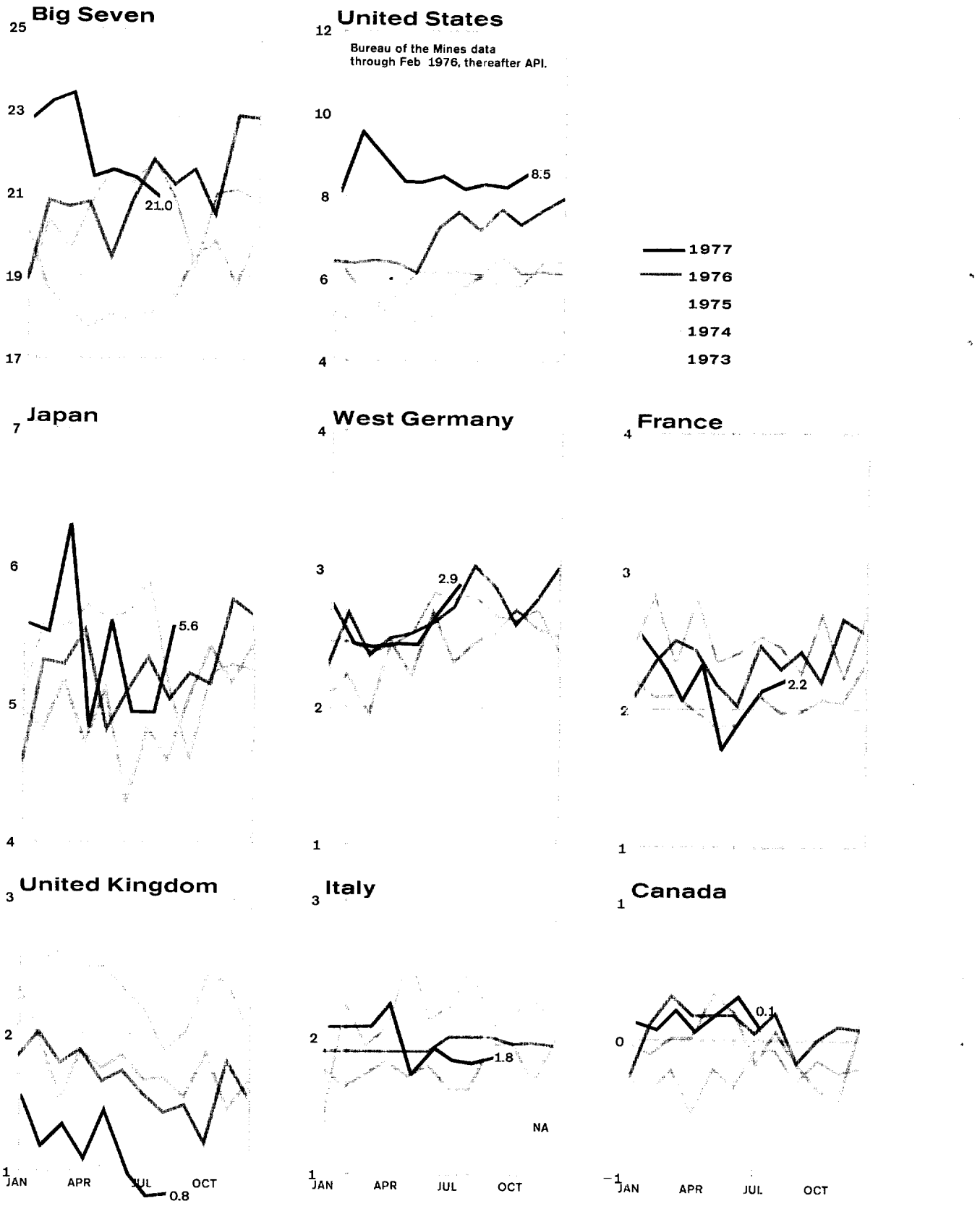
NET OIL IMPORTS MILLION B/D



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World Crude Oil Production, Excluding Natural Gas Liquids

Thousand b/d

					1977				
								Preliminary	
	1973	1974	1975	1976	1st Qtr	2d Qtr	Jul	Aug	Sep
World	**55,755**	**55,875**	**52,990**	**57,350**	**59,130**	**59,200**	**57,910**	**58,700**	
Free World	**45,850**	**45,145**	**41,470**	**45,110**	**46,520**	**46,400**	**45,000**	**45,750**	
Western hemisphere	16,145	15,290	14,135	13,820	13,850	13,740	13,860	14,400	
United States [1]	9,210	8,770	8,370	8,120	7,960	8,040	8,190	8,460	8,650
Venezuela	3,365	2,975	2,345	2,290	2,350	2,170	2,200	2,280	
Canada [2]	1,800	1,695	1,460	1,300	1,320	1,280	1,130	1,320	1,210
Mexico [3]	465	580	720	850	910	980	1,050	1,050	
Argentina	420	410	390	390	430	430	450	450	
Ecuador	210	175	160	190	200	170	150	190	140
Other	675	685	690	680	680	670	690	650	
Eastern hemisphere	29,705	29,855	27,335	31,290	32,670	32,660	31,140	31,350	
Western Europe	370	380	550	850	1,290	1,320	1,300	1,410	
Norway	30	35	190	280	340	200	220	270	
United Kingdom	Negl.	Negl.	20	240	630	800	770	820	
Other	340	345	340	330	320	320	310	320	
Middle East	21,215	21,855	19,590	22,180	22,300	22,140	21,110	21,020	
Saudi Arabia [4]	7,595	8,480	7,075	8,580	9,310	9,400	9,800	8,620	8,660
Iran	5,860	6,020	5,350	5,900	5,790	5,420	4,710	5,660	5,970
Kuwait [4]	3,020	2,545	2,085	2,150	1,850	1,850	1,630	1,790	2,250
Iraq	2,020	1,970	2,260	2,420	2,230	2,330	1,900	1,900	2,100
United Arab Emirates	1,535	1,680	1,665	1,940	2,010	2,070	2,050	1,930	
Abu Dhabi	1,305	1,410	1,370	1,590	1,660	1,720	1,720	1,600	1,650
Dubai	230	240	255	310	320	320	310	310	
Sharjah	0	30	40	40	40	30	20	20	
Qatar	570	520	440	490	420	410	390	500	340
Oman	295	290	340	370	370	350	330	330	
Syria	100	120	185	200	200	190	180	180	
Other	220	230	190	130	120	120	120	110	
Africa	5,900	5,370	4,980	5,790	6,330	6,420	5,940	6,140	
Nigeria	2,055	2,255	1,785	2,070	2,220	2,240	2,060	2,020	
Libya	2,175	1,520	1,480	1,930	2,130	2,150	1,890	2,130	
Algeria	1,070	960	960	990	1,070	1,060	1,000	1,000	
Gabon	150	200	225	220	220	220	230	230	230
Egypt	165	145	250	330	370	430	440	440	
Angola/Cabinda	160	170	140	110	170	160	160	160	
Other	125	120	140	140	150	160	160	160	
Asia-Pacific	2,220	2,250	2,215	2,470	2,750	2,780	2,790	2,780	
Australia	370	390	410	420	430	430	440	440	
Indonesia	1,340	1,375	1,305	1,500	1,690	1,700	1,690	1,680	1,670
Malaysia-Brunei	320	290	300	330	380	400	410	410	
Other	190	195	200	220	250	250	250	250	
Communist Countries	**9,905**	**10,730**	**11,520**	**12,240**	**12,610**	**12,800**	**12,910**	**12,950**	
USSR	8,420	9,020	9,630	10,170	10,510	10,660	10,740	10,780	
China	1,090	1,310	1,490	1,670	1,700	1,740	1,770	1,770	
Romania	285	290	290	290	290	290	290	290	
Other	110	110	110	110	110	110	110	110	

[1] Natural gas liquids amounted to an estimated 1.6 million b/d in Sep.
[2] Natural gas liquids amounted to an estimated 340,000 b/d in Sep.
[3] Natural gas liquids amounted to an estimated 95,000 b/d in Aug.
[4] Including about one-half of Neutral Zone crude oil production, which amounted to about 320,000 b/d in Sep.

Free World Crude Oil Production, Including Natural Gas Liquids

Thousand b/d

	1973	1974	1975	1976	1977 1st Qtr	1977 2d Qtr	1977 Jul	1977 Aug	1977 Sep
Free World [1]	**48,975**	**48,565**	**44,970**	**48,940**	**50,240**	**50,120**	**48,720**	**49,480**	
Non-OPEC Producers [1]	**17,665**	**17,505**	**17,425**	**17,755**	**18,170**	**18,350**	**18,440**	**18,970**	
United States	10,950	10,460	10,000	9,725	9,540	9,620	9,770	10,040	10,230
Canada	2,120	2,005	1,770	1,620	1,660	1,620	1,470	1,660	1,550
United Kingdom	Negl.	Negl.	25	280	680	850	820	870	
Norway	30	35	195	300	375	235	255	305	
Mexico	535	660	800	935	1,005	1,075	1,145	1,145	
Other [2]	3,530	3,545	3,735	3,795	4,010	4,050	4,080	4,050	
OPEC	**31,310**	**31,060**	**27,545**	**31,185**	**32,070**	**31,770**	**30,280**	**30,510**	
Saudi Arabia [3]	7,685	8,610	7,215	8,765	9,510	9,600	10,000	8,820	8,860
Kuwait [3]	3,080	2,595	2,135	2,205	1,910	1,910	1,690	1,850	2,310
Libya	2,210	1,540	1,510	1,965	2,165	2,185	1,925	2,165	
Iraq	2,020	1,970	2,260	2,420	2,235	2,335	1,905	1,905	2,105
UAE	1,535	1,680	1,665	1,940	2,020	2,080	2,060	1,940	
Abu Dhabi	1,305	1,410	1,370	1,590	1,670	1,730	1,730	1,610	1,660
Dubai	230	240	255	310	310	320	310	310	
Sharjah	0	30	40	40	40	30	20	20	
Algeria	1,100	1,010	1,020	1,080	1,170	1,160	1,100	1,100	
Qatar	570	525	450	500	430	420	400	510	350
Iran	5,900	6,065	5,395	5,945	5,840	5,470	4,760	5,710	6,020
Venezuela	3,455	3,060	2,420	2,365	2,430	2,250	2,280	2,360	
Nigeria	2,055	2,255	1,785	2,070	2,220	2,240	2,060	2,020	
Indonesia	1,340	1,375	1,305	1,520	1,720	1,730	1,720	1,710	
Gabon	150	200	225	220	220	220	230	230	230
Ecuador	210	175	160	190	200	170	150	190	140

[1] Free World and Non-OPEC Producers totals include net Communist imports of about 500,000 b/d in 1973, 800,000 b/d in 1974, 900,000 b/d in 1975, 1,100,000 b/d in 1976, and 900,000 b/d in 1977.

[2] Including Bahrain, Egypt, and Syria.

[3] Including about one-half of Neutral Zone production.

World Natural Gas Liquids (NGL) Production [1]

Thousand b/d

	1973	1974	1975	1976	1977
World	**2,845**	**2,860**	**2,855**	**2,995**	**3,095**
Free World	**2,625**	**2,620**	**2,600**	**2,730**	**2,820**
OPEC	**345**	**385**	**410**	**515**	**580**
Non-OPEC	**2,280**	**2,235**	**2,190**	**2,215**	**2,240**
Western Hemisphere	2,275	2,220	2,150	2,140	2,150
United States	1,740	1,690	1,630	1,605	1,580
Venezuela	90	85	75	75	80
Canada	320	310	310	320	340
Mexico	70	80	80	85	95
Other	55	55	55	55	55
Eastern Hemisphere	350	400	450	590	670
Western Europe	35	35	45	95	120
Norway	0	0	5	20	35
United Kingdom	0	0	15	40	50
Other	35	35	35	35	35
Middle East	190	230	245	295	335
Saudi Arabia	90	130	140	185	200
Iran	40	45	45	45	50
Kuwait	60	50	50	55	60
Qatar	0	5	10	10	10
Abu Dhabi	0	0	0	0	10
Iraq	0	0	0	0	5
Africa	65	70	90	125	135
Libya	35	20	30	35	35
Algeria	30	50	60	90	100
Asia-Pacific	60	65	70	95	110
Australia	50	50	50	55	60
Indonesia	0	0	0	20	30
Other	10	15	20	20	20
Communist Countries	**220**	**240**	**255**	**265**	**275**
USSR	210	230	240	250	260
China	N.A.	N.A.	N.A.	N.A.	N.A.
Other	10	10	15	15	15

[1] Estimated.

OAPEC [1] and OPEC [2] Countries: Crude Oil Production

Thousand b/d

					1977			
								Preliminary
	1973	1974	1975	1976	1st Qtr	2d Qtr	Jul	Aug
Total OAPEC (thousand b/d)	**18,090**	**17,735**	**16,165**	**18,740**	**19,300**	**19,600**	**19,010**	**18,210**
% change from Sep 1973 [3]		−11	−19	−6	−4	−2	−5	−9
% change from Dec 1976 [4]					−8	−7	−10	−14
Total OPEC (thousand b/d)	**30,965**	**30,675**	**27,135**	**30,670**	**31,490**	**31,190**	**29,700**	**29,930**
% change from Sep 1973 [3]		−7	−18	−7	−4	−5	−10	−9
% change from Dec 1976 [4]					−8	−8	−13	−12

[1] The members of the Organization of Arab Petroleum Exporting Countries are Abu Dhabi, Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and Syria.

[2] The membership of the Organization of Petroleum Exporting Countries consists of OAPEC members (excluding Bahrain, Egypt, and Syria), plus Dubai, Ecuador, Gabon, Indonesia, Iran, Nigeria, Sharjah, and Venezuela.

[3] In Sep 1973, the pre-crisis level of output, OAPEC countries produced 20,038 b/d and OPEC countries 32,956 b/d.

[4] In Dec 1976, the post-crisis peak of output, OAPEC countries produced 21,060 b/d and OPEC countries 34,070 b/d.

OAPEC and OPEC Countries: Crude Oil Production Capacity

Thousand b/d

	Estimated Productive Capacity [1]	Underutilization of Productive Capacity	
		July	Aug
Saudi Arabia [2]	10,500	700	1,880
Kuwait [2]	3,500	1,870	1,710
Libya	2,500	610	370
Iraq	3,000	1,100	1,100
Abu Dhabi	2,000	280	400
Algeria	1,080	80	80
Qatar	700	310	200
Egypt	450	10	10
Syria	200	20	20
Bahrain	60	0	10
Total OAPEC	**23,990**	**4,980**	**5,780**
Iran	6,700	1,990	1,040
Venezuela	2,600	400	320
Nigeria	2,300	240	280
Indonesia	1,800	110	120
Dubai	340	30	30
Gabon	250	20	20
Ecuador	225	35	35
Sharjah	50	30	30
Total OPEC [3]	**37,545**	**7,845**	**7,615**

[1] Estimated at maximum efficient rate (MER) of production. In some cases output can exceed the MER for short periods of time without damaging the fields.

[2] Including about one-half of Neutral Zone capacity production.

[3] OAPEC members (excluding Bahrain, Egypt, and Syria), plus the other countries shown.

A Note on Petroleum Reserves

Any estimate of oil and natural gas reserves must be treated as rough approximation. Few countries publish official reserve estimates, and there is no consistent rigorous definition of reserves. Moreover, the volume of oil and/or gas in place, even in a well-delineated field, can never be precisely accurate; estimates of commercially recoverable oil and natural gas are usually made not by reference to existing technology but by reference to the production system currently in use, and even this can provide only an approximation. Assessments of proved reserves therefore do not mean absolute world availability; they are only an indication of the quantity of oil that is technically and economically feasible to extract with current techniques at current prices.

CIA's reserve figures are for *proved and probable* reserves and are based on the best available published information and on our own judgemental analysis in cases where we have unique information. CIA uses the restrictive definition of *probable* reserves (as differentiated from *possible* reserves) common in the industry. Our *proved and probable* figure does not differ greatly from the *proved* figure in many cases, such as Venezuela, Iran, and Libya. In these countries, extensive exploration has taken place and extentions of known fields are considered unlikely. In other cases—such as Saudi Arabia, Mexico, and the United Kingdom—differences between *proved* and *proved and probable* reserves are considerably larger.

Estimated Proved and Probable Petroleum Reserves

Area and Country	Crude Oil Billion Barrels	Natural Gas Trillion Cubic Feet
World	**665**	**2,626** [1]
Free World	**600**	**1,764**
Western Hemisphere	96	426
United States [2]	39	219
Mexico	25	43
Venezuela	14	43
Canada [2]	8	71
Ecuador	2	11
Argentina	2	11
Brazil	1	7
Colombia	1	7
Peru	2	7
Trinidad and Tobago	2	7
Eastern Hemisphere	504	1,338
Middle East	392	845
Saudi Arabia	158	106
Kuwait	71	35
Iran [3]	60	600
Iraq	36	35
United Arab Emirates	34	35
Neutral Zone	17	7
Qatar	7	18
Oman	6	3
Syria	2	3
Other	1	3
Africa	59	211
Libya	25	25
Nigeria	19	46
Algeria	7	127
Egypt	4	3
Gabon	1	Negl.
Angola-Cabinda	1	Negl.
Tunisia	1	7
Other	1	3
Western Europe	31	177
United Kingdom	20	46
Norway	8	25
Netherlands	Negl.	71
Spain	1	Negl.
Other	2	35
Asia-Pacific	22	105
Indonesia	14	21
Brunei	2	11
Malaysia	2	14
Australia	2	35
India	2	3
Pakistan	Negl.	21
Communist Countries	**65**	**862**
USSR	40	812
China	20	25
Other	5	25

[1] Equivalent to 470 billion barrels of oil.
[2] Including Arctic gas deposits and natural gas liquids.
[3] Including recent discoveries.

Estimated Imports of Crude Oil and Refined Products
1976

Thousand b/d

	US [1]	Japan	Canada	Western Europe	West Germany	France	UK	Italy	Netherlands	Belgium/Luxembourg	Spain	Other Western Europe
Algeria	437	2	14	430	213	94	19	70	3	3	28	0
Bahrain	3	32	0	8	1	0	6	0	1	0	0	0
Egypt	17	1	2	34	1	13	8	0	11	1	0	0
Iraq	38	128	33	1,171	35	327	105	318	34	1	87	264
Kuwait	9	450	6	674	38	86	229	13	111	8	58	131
Libya	532	41	25	1,150	424	63	57	237	12	0	89	268
Qatar	69	6	0	293	24	58	94	22	50	0	0	45
Saudi Arabia	1,371	1,719	122	3,262	379	877	370	516	354	293	376	97
Syria	1	0	0	107	23	53	3	0	0	28	0	0
UAE	319	530	16	813	138	234	74	20	115	26	0	206
Total OAPEC	**2,796**	**2,909**	**218**	**7,942**	**1,276**	**1,805**	**965**	**1,196**	**691**	**360**	**638**	**1,011**
Ecuador	63	0	2	0	0	0	0	0	0	0	0	0
Gabon	46	0	12	65	11	29	1	0	3	0	21	0
Indonesia	573	613	0	6	3	0	0	0	0	0	0	3
Iran	548	974	162	2,341	383	291	399	290	327	73	179	399
Nigeria	1,124	17	36	699	181	155	76	16	195	30	0	46
Venezuela	985	6	302	226	38	36	41	26	11	3	23	48
Total OPEC [2]	**6,114**	**4,486**	**730**	**11,130**	**1,867**	**2,250**	**1,465**	**1,528**	**1,215**	**437**	**861**	**1,507**
Canada	599	0	0	0	0	0	0	0	0	0	0	0
Mexico	91	0	0	0	0	0	0	0	0	0	0	0
Other	470	716	24	2,362 [3,4]	917	282	570	740	208	288	123	1,766
Total	**7,295**	**5,235**	**756**	**13,641**	**2,809**	**2,598**	**2,052**	**2,268**	**1,435**	**754**	**984**	**2,273**

[1] Products traced to source of crude oil.
[2] OAPEC members excluding Bahrain, Egypt, and Syria plus other countries shown.
[3] Because of intra-European trade, components do not add to the totals shown.
[4] Other and unknown.

Selected Developed Countries: Crude Oil Imports, by Source

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 Apr	1977 May	Percent of Total Sep 1973	Percent of Total May 1977
United States									
Algeria	124	180	264	408	527	654	381	3.6	5.6
Egypt	0	9	5	17	12	16	82	0	1.2
Iraq	17	0	2	26	28	52	168	0.5	2.5
Kuwait	44	5	4	1	64	67	51	1.3	0.7
Libya	153	4	223	444	641	776	749	4.4	11.0
Qatar	41	17	18	24	39	34	94	1.2	1.4
Saudi Arabia	599	438	701	1,222	1,371	1,429	1,716	17.3	25.2
United Arab Emirates [1]	88	69	117	255	336	324	237	2.5	3.5
Other [2]	0	0	0	0	6	0	0	0	0
Total OAPEC	**1,066**	**722**	**1,334**	**2,397**	**3,024**	**3,352**	**3,478**	**30.7**	**51.0**
Ecuador	33	42	57	51	51	53	77	0.9	1.1
Gabon	0	23	27	26	37	26	42	0	0.6
Indonesia	249	284	379	536	565	474	480	7.2	7.0
Iran	205	463	278	298	518	517	535	5.9	7.8
Nigeria	409	697	746	1,014	1,278	1,238	1,060	11.8	15.5
Venezuela	405	319	395	241	173	285	251	11.7	3.7
Total OPEC [3]	**2,367**	**2,541**	**3,211**	**4,546**	**5,628**	**5,929**	**5,841**	**68.2**	**85.6**
Canada	998	791	600	371	282	313	248	28.8	3.6
Mexico	8	2	70	87	144	145	174	0.2	2.6
UK	0	0	Negl.	13	86	35	50	0	0.7
Norway	0	1	12	35	54	0	59	0	0.9
Other	98	133	207	218	308	347	367	2.8	5.4
Total	**3,471**	**3,477**	**4,105**	**5,287**	**6,520**	**6,785**	**6,821**	**100.0**	**100.0**

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 2d Qtr	1977 Jul	Percent of Total Sep 1973	Percent of Total Jul 1977
Canada									
Algeria	0	12	Negl.	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	0
Iraq	23	10	31	29	17	6	36	2.4	5.9
Kuwait	0	25	29	2	0	0	0	0	0
Libya	56	9	9	20	0	0	0	6.0	0
Qatar	0	0	2	0	0	0	0	0	0
Saudi Arabia	82	91	165	109	188	168	145	8.7	23.6
United Arab Emirates [1]	49	24	46	57	4	11	1	5.2	0.2
Other [2]	0	0	0	0	0	0	0	0	0
Total OAPEC	**210**	**171**	**282**	**217**	**209**	**185**	**182**	**22.3**	**29.6**
Ecuador	13	6	1	0	0	0	0	1.4	0
Gabon	0	0	3	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	0	0	0
Iran	149	199	202	157	145	126	94	15.9	15.3
Nigeria	39	14	17	28	11	7	0	4.1	0
Venezuela	485	351	265	269	263	262	215	51.6	35.0
Total OPEC [3]	**896**	**741**	**770**	**671**	**628**	**580**	**491**	**95.3**	**80.0**
Other	44	79	54	49	83	109	123	4.7	20.0
Total	**940**	**820**	**824**	**720**	**711**	**689**	**614**	**100.0**	**100.0**

Selected Developed Countries: Crude Oil Imports, by Source
(Continued)

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 2d Qtr	1977 Jul	1977 Aug	Percent of Total Sep 1973	Percent of Total Aug 1977
Japan										
Algeria	0	5	6	0	0	4	0	11	0	0.2
Egypt	0	2	0	Negl.	0	0	0	0	0	0
Iraq	0	40	92	127	162	162	318	132	0	2.7
Kuwait	488	479	416	342	350	399	255	403	10.0	8.2
Libya	31	70	59	41	11	35	13	21	0.6	0.4
Qatar	0	6	3	2	28	21	0	51	0	1.0
Saudi Arabia	1,148	1,304	1,355	1,572	1,846	1,429	1,445	1,723	23.5	34.9
United Arab Emirates [1]	511	533	408	530	586	494	486	579	10.5	11.7
Other [2]	0	0	0	0	0	0	0	0	0	0
Total OAPEC	**2,181**	**2,439**	**2,339**	**2,614**	**2,983**	**2,544**	**2,517**	**2,920**	**44.7**	**59.1**
Ecuador	0	0	0	0	0	0	0	0	0	0
Gabon	0	0	0	0	0	0	0	0	0	0
Indonesia	638	671	518	553	669	665	628	706	13.1	14.3
Iran	1,554	1,222	1,147	928	957	771	666	824	31.9	16.7
Nigeria	101	87	71	17	0	0	0	0	2.1	0
Venezuela	7	9	5	6	7	7	7	0	0.1	0
Total OPEC [3]	**4,481**	**4,426**	**4,080**	**4,118**	**4,616**	**3,987**	**3,818**	**4,450**	**91.9**	**90.1**
Other	397	370	459	483	568	485	580	490	8.1	9.9
Total	**4,878**	**4,798**	**4,539**	**4,601**	**5,184**	**4,472**	**4,398**	**4,940**	**100.0**	**100.0**

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 2nd Qtr	1977 Jul	1977 Aug	Percent of Total Sep 1973	Percent of Total Aug 1977
United Kingdom										
Abu Dhabi	28	86	47	29	35	44	45	41	1.5	3.2
Algeria	46	10	29	18	14	8	12	12	2.4	1.0
Egypt	0	5	16	3	0	11	37	0	0	0
Iraq	67	64	52	105	114	110	50	80	3.5	6.3
Kuwait	293	343	218	229	181	217	183	147	15.3	11.6
Libya	98	175	53	45	20	50	62	32	5.1	2.5
Qatar	73	96	77	94	78	24	34	20	3.8	1.6
Saudi Arabia	530	712	444	370	405	457	361	275	27.6	21.8
Other [2]	0	0	16	3	0	0	0	0	0	0
Total OAPEC	**1,135**	**1,491**	**952**	**896**	**847**	**921**	**784**	**607**	**59.2**	**48.1**
Dubai	48	26	30	45	36	36	14	74	2.5	5.9
Ecuador	0	0	0	0	0	0	0	0	0	0
Gabon	0	14	0	0	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	0	0	0	0
Iran	317	290	351	398	414	269	145	243	16.5	19.2
Nigeria	188	158	117	76	70	13	16	18	9.8	1.4
Sharjah	0	0	0	0	0	0	0	0	0	0
Venezuela	66	66	64	29	16	22	18	33	3.4	2.6
Total OPEC [3]	**1,754**	**2,040**	**1,482**	**1,438**	**1,383**	**1,250**	**940**	**975**	**91.5**	**77.2**
Other	163	226	261	326	263	240	170	288	8.5	22.8
Total	**1,917**	**2,271**	**1,775**	**1,770**	**1,646**	**1,501**	**1,147**	**1,263**	**100.0**	**100.0**

Selected Developed Countries: Crude Oil Imports, by Source
(Continued)

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 2d Qtr	1977 Jul	Percent of Total Sep 1973	Percent of Total Jul 1977
West Germany									
Algeria	239	201	204	210	227	164	215	10.4	10.5
Egypt	0	0	4	0	0	0	0	0	0
Iraq	43	73	28	35	31	21	0	1.9	0
Kuwait	102	82	54	25	24	16	0	4.4	0
Libya	418	320	296	421	470	354	408	18.2	20.0
Qatar	18	20	25	24	13	24	0	0.8	0
Saudi Arabia	710	514	371	378	376	404	545	30.9	26.7
United Arab Emirates [1]	162	169	158	125	155	156	140	7.1	6.9
Other [2]	26	19	16	25	22	25	26	1.1	1.3
Total OAPEC	**1,718**	**1,398**	**1,156**	**1,243**	**1,318**	**1,164**	**1,334**	**74.8**	**65.3**
Ecuador	0	0	0	0	0	0	0	0	0
Gabon	32	19	21	11	7	10	0	1.4	0
Indonesia	0	0	0	4	25	8	1	0	Negl.
Iran	248	265	284	380	338	319	288	10.8	14.1
Nigeria	168	241	202	181	162	177	227	7.3	11.1
Venezuela	42	38	43	28	16	18	31	1.8	1.5
Total OPEC [3]	**2,182**	**1,942**	**1,686**	**1,822**	**1,844**	**1,671**	**1,855**	**95.0**	**90.8**
UK	0	0	0	14	52	66	51	0	2.5
Norway	Negl.	3	12	23	38	12	27	0	1.3
Other	89	86	89	95	62	81	83	3.9	4.1
Total	**2,297**	**2,050**	**1,807**	**1,979**	**2,018**	**1,855**	**2,042**	**100.0**	**100.0**

Thousand b/d

	Sep 1973 (Pre-Crisis Level)	1974	1975	1976	1977 1st Qtr	1977 2d Qtr	1977 Jul	1977 Aug	Percent of Total Sep 1973	Percent of Total Aug 1977
France										
Abu Dhabi	249	268	210	202	186	214	158	147	9.0	6.2
Algeria	227	181	118	95	99	92	81	107	8.2	4.5
Egypt	1	0	4	13	11	3	0	0	Negl.	0
Iraq	375	330	240	335	379	274	436	447	13.6	18.9
Kuwait	316	246	134	86	103	57	84	59	11.4	2.5
Libya	131	74	44	62	38	42	74	46	4.7	1.9
Qatar	69	70	47	58	84	35	59	60	2.5	2.5
Saudi Arabia	623	842	669	870	832	813	834	987	22.5	41.8
Other [2]	12	10	41	60	49	60	60	18	0.4	0.8
Total OAPEC	**2,003**	**2,021**	**1,507**	**1,781**	**1,781**	**1,595**	**1,786**	**1,871**	**72.5**	**79.3**
Dubai	27	36	43	33	52	31	41	62	1.0	2.6
Ecuador	0	0	0	0	0	0	0	0	0	0
Gabon	33	43	27	29	53	44	42	36	1.2	1.5
Indonesia	0	0	0	0	0	0	0	0	0	0
Iran	216	174	266	294	336	197	102	85	7.8	3.6
Nigeria	253	208	175	150	127	160	168	150	9.2	6.4
Sharjah	0	0	0	0	0	0	0	0	0	0
Venezuela	36	28	15	16	10	14	17	31	1.3	1.3
Total OPEC [3]	**2,555**	**2,500**	**1,988**	**2,230**	**2,299**	**1,973**	**2,096**	**2,217**	**92.4**	**93.9**
UK	0	0	0	7	0	28	37	31	0	1.3
Norway	0	2	18	46	0	22	17	14	0	0.6
Other	196	92	69	61	113	91	79	80	7.1	3.4
Total	**2,764** [4]	**2,604**	**2,120**	**2,417**	**2,472**	**2,182**	**2,289**	**2,360**	**100.0**	**100.0**

Selected Developed Countries: Crude Oil Imports, by Source
(Continued)

	Thousand b/d						Percent of Total	
					1977			
	4th Qtr 1973 (Pre-Crisis Level)	1974	1975	1976	1st Qtr	2d Qtr	4th Qtr 1973	2d Qtr 1977
Italy								
Algeria	61	49	77	51	22	20	2.4	0.9
Egypt	0	0	0	0	0	0	0	0
Iraq	383	269	374	312	331	327	15.2	15.0
Kuwait	212	130	82	47	167	114		5.3
Libya	597	478	260	340	302	328	23.7	15.0
Qatar	21	57	26	26	24	20	0.8	0.9
Saudi Arabia	692	824	527	545	605	694	27.5	31.8
United Arab Emirates [1]	0	13	33	50	99	34	0	1.6
Other [2]	0	0	0	0	0	0	0	0
Total OAPEC	**1,966**	**1,820**	**1,379**	**1,371**	**1,550**	**1,537**	**78.2**	**70.5**
Ecuador	0	0	0	0	0	0	0	0
Gabon	3	10	6	1	10	0	0.1	0
Indonesia	0	0	0	0	0	0	0	0
Iran	277	301	258	292	250	296	11.0	13.6
Nigeria	9	63	7	7	10	18	0.4	0.8
Venezuela	18	13	20	16	12	34	0.7	1.6
Total OPEC [3]	**2,273**	**2,207**	**1,670**	**1,687**	**1,832**	**1,885**	**90.4**	**86.5**
UK	0	0	0	13	4	0	0	0
Norway	0	0	0	0	0	0	0	0
Other [5]	241	190	271	371	348	295	9.6	13.5
Total	**2,514**	**2,397**	**1,941**	**2,071**	**2,184**	**2,180**	**100.0**	**100.0**

[1] Including oil imports from Abu Dhabi and possibly from Dubai and Sharjah, which are not members of OAPEC.
[2] Including, when applicable, Bahrain and Syria.
[3] Consisting of OAPEC members (excluding Bahrain, Egypt, and Syria) plus the other countries shown.
[4] Estimated.
[5] Including data that cannot be distributed by area of origin.

Thousand b/d

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
United States [1]													
1973													
Crude imports	2,732	2,873	3,162	3,049	3,215	3,220	3,501	3,593	3,471	3,740	3,452	2,891	3,244
Product imports	3,079	3,501	3,413	2,551	2,603	2,659	2,671	2,913	2,903	2,785	3,412	3,055	3,012
Total imports	5,811	6,374	6,575	5,600	5,818	5,879	6,172	6,506	6,374	6,525	6,864	5,946	6,256
Exports	210	260	224	275	237	215	240	217	242	221	202	227	231
Net imports	5,601	6,114	6,351	5,325	5,581	5,664	5,932	6,289	6,132	6,304	6,662	5,719	6,025
1974													
Crude imports	2,382	2,248	2,462	3,267	3,908	3,925	4,091	3,924	3,797	3,810	3,958	3,869	3,477
Product imports	2,973	2,973	2,753	2,703	2,580	2,493	2,397	2,434	2,225	2,320	2,704	2,853	2,611
Total imports	5,355	5,221	5,215	5,970	6,488	6,418	6,488	6,358	6,022	6,130	6,662	6,722	6,088
Exports	207	203	196	243	247	238	253	247	171	221	186	231	220
Net imports	5,148	5,018	5,019	5,727	6,241	6,180	6,235	6,111	5,851	5,909	6,476	6,491	5,868
1975													
Crude imports	4,029	3,828	3,656	3,378	3,486	3,905	4,192	4,581	4,689	4,389	4,623	4,476	4,105
Product imports	2,832	2,348	2,074	1,662	1,728	1,502	1,767	1,717	2,115	1,940	1,796	1,949	1,951
Total imports	6,861	6,176	5,730	5,040	5,214	5,407	5,959	6,298	6,804	6,329	6,419	6,425	6,056
Exports	228	248	213	190	202	224	186	203	205	187	166	262	209
Net imports	6,633	5,928	5,517	4,850	5,012	5,183	5,773	6,095	6,599	6,142	6,253	6,163	5,847
1976													
Crude imports	4,594	4,208	4,738	4,790	4,669	5,621	5,792	5,556	5,875	5,699	5,955	5,925	5,287
Product imports	2,016	2,423	1,946	1,805	1,654	1,858	2,099	1,826	2,038	1,808	2,115	2,353	2,008
Total imports	6,610	6,631	6,684	6,595	6,323	7,479	7,891	7,382	7,913	7,507	8,070	8,278	7,295
Exports	156	241	185	222	180	213	242	220	196	198	348	309	226
Net imports	6,454	6,390	6,499	6,373	6,143	7,266	7,649	7,162	7,717	7,309	7,720	7,969	7,069
1977													
Crude imports	6,288	6,652	6,633	6,785	6,821	6,947	6,656	6,572	6,580				
Product imports	2,594	3,278	2,529	1,886	1,754	1,855	1,800	2,010	2,170				
Total imports	8,882	9,930	9,162	8,671	8,575	8,802	8,456	8,582	8,750				
Exports	192	234	207	223	288	256	212	228	214				
Net imports	8,690	9,696	8,955	8,448	8,287	8,546	8,244	8,354	8,536				
Canada													
1973													
Crude imports	945	975	932	772	930	741	1,058	937	940	799	934	802	897
Product imports	163	93	55	37	119	121	122	153	105	132	140	149	130
Total imports	1,108	1,068	987	809	1,049	862	1,180	1,090	1,045	931	1,074	951	1,027
Exports	1,357	1,500	1,364	1,472	1,495	1,446	1,162	1,298	1,300	1,363	1,357	1,237	1,364
Net imports	−249	−432	−377	−663	−446	−584	18	−208	−255	−432	−283	−322	−337
1974													
Crude imports	822	988	717	718	971	763	816	817	672	787	798	721	820
Product imports	96	44	142	33	114	125	89	104	58	75	87	74	83
Total imports	918	1,032	859	751	1,085	888	905	921	730	862	885	795	903
Exports	1,180	1,402	1,056	1,266	1,270	1,220	956	978	1,026	988	1,110	981	1,086
Net imports	−262	−370	−197	−515	−185	−332	−51	−57	−296	−126	−225	−186	−183
1975													
Crude imports	1,052	915	849	804	1,067	850	678	946	716	516	562	929	824
Product imports	48	68	27	46	56	56	48	50	40	57	26	27	41
Total imports	1,100	983	876	850	1,123	906	726	996	756	573	588	956	865
Exports	1,122	1,068	834	815	745	702	893	903	936	921	1,017	848	899
Net imports	−22	−85	42	35	378	204	−167	93	−180	−348	−429	108	−34
1976													
Crude imports	738	783	870	802	793	832	825	728	409	565	690	596	720
Product imports	21	26	30	16	45	45	43	54	23	60	50	20	36
Total imports	759	809	900	818	838	877	868	782	432	625	740	616	756
Exports	1,029	669	569	636	650	676	815	571	603	605	625	612	646
Net imports	−270	140	331	182	188	201	53	211	−171	20	115	4	110
1977													
Crude imports	729	645	752	585	679	802	614						
Product imports	28	25	27	19	49	60	37						
Total imports	757	670	779	604	728	862	651						
Exports	611	568	522	526	515	506	523						
Net imports	146	102	257	78	213	356	128						
Japan													
1973													
Crude imports	4,662	4,775	4,830	4,864	4,918	5,043	4,697	5,550	4,878	5,483	5,029	5,139	4,992
Product imports	640	803	650	542	664	640	523	507	443	592	533	486	584
Total imports	5,302	5,578	5,480	5,406	5,582	5,683	5,220	6,057	5,321	6,075	5,562	5,625	5,576
Exports	11	33	23	28	19	13	39	31	21	25	13	25	24
Net imports	5,291	5,545	5,457	5,378	5,563	5,670	5,181	6,026	5,300	6,050	5,549	5,600	5,552
1974													
Crude imports	4,467	5,008	4,886	5,120	4,794	4,878	5,204	4,601	4,214	4,763	4,818	4,834	4,798
Product imports	648	671	684	625	858	823	755	624	531	529	569	597	662
Total imports	5,115	5,679	5,570	5,745	5,652	5,701	5,959	5,225	4,745	5,292	5,387	5,431	5,460
Exports	14	25	16	20	24	17	25	93	135	46	79	179	56
Net imports	5,101	5,654	5,554	5,725	5,628	5,684	5,934	5,132	4,610	5,246	5,308	5,252	5,404

Selected Developed Countries: Trends in Oil Trade
(Continued)

Thousand b/d

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Japan (Continued)													
1975													
Crude imports	4,581	4,502	4,773	4,304	4,765	3,956	4,401	4,120	4,637	4,928	4,611	4,880	4,539
Product imports	471	367	466	445	439	361	487	489	461	518	545	574	469
Total imports	5,052	4,869	5,239	4,749	5,204	4,317	4,888	4,609	5,098	5,446	5,156	5,454	5,008
Exports	80	52	40	38	61	40	42	17	5	7	5	6	32
Net imports	4,972	4,817	5,199	4,711	5,143	4,277	4,846	4,592	5,093	5,439	5,151	5,448	4,976
1976													
Crude imports	3,901	4,683	4,586	4,989	4,217	4,469	4,690	4,391	4,492	4,642	5,165	5,019	4,601
Product imports	699	649	704	563	593	637	669	651	747	504	615	634	634
Total imports	4,600	5,332	5,290	5,552	4,810	5,106	5,359	5,042	5,239	5,146	5,780	5,653	5,235
Exports	3	5	9	4	4	5	5	6	9	4	9	6	6
Net imports	4,597	5,327	5,281	5,548	4,806	5,101	5,354	5,036	5,230	5,142	5,771	5,647	5,229
1977													
Crude imports	5,023	4,857	5,671	4,210	4,955	4,234	4,398	4,940					
Product imports	584	686	665	632	682	729	561	644					
Total imports	5,607	5,543	6,336	4,842	5,637	4,963	4,959	5,584					
Exports	7	8	8	6	4	11	8	5					
Net imports	5,600	5,535	6,328	4,836	5,633	4,952	4,951	5,579					
France													
1973													
Crude imports	2,897	2,699	2,955	2,728	2,540	2,676	2,288	2,791	2,764	2,797	3,053	2,549	2,728
Product imports	137	174	148	142	176	128	138	169	139	171	126	117	147
Total imports	3,034	2,873	3,103	2,870	2,716	2,804	2,426	2,960	2,903	2,968	3,179	2,666	2,875
Exports	255	260	232	226	317	290	246	307	307	261	253	279	269
Net imports	2,779	2,613	2,871	2,644	2,399	2,514	2,180	2,653	2,596	2,707	2,926	2,387	2,606
1974													
Crude imports	2,686	2,942	2,508	2,990	2,476	2,555	2,580	2,529	2,274	2,725	2,322	2,686	2,604
Product imports	80	121	80	121	144	98	180	152	188	157	134	200	138
Total imports	2,766	3,063	2,588	3,111	2,620	2,653	2,760	2,681	2,462	2,882	2,456	2,886	2,742
Exports	269	230	258	277	257	225	210	211	186	166	220	211	224
Net imports	2,497	2,833	2,330	2,834	2,363	2,428	2,550	2,470	2,276	2,716	2,236	2,675	2,518
1975													
Crude imports	2,234	2,056	2,095	2,047	1,952	1,989	2,130	2,201	2,136	2,199	2,203	2,462	2,120
Product imports	213	266	203	165	127	162	180	100	118	113	131	131	158
Total imports	2,447	2,322	2,298	2,212	2,079	2,151	2,310	2,301	2,254	2,312	2,334	2,593	2,278
Exports	209	221	175	217	190	230	182	302	264	214	267	259	227
Net imports	2,238	2,101	2,123	1,995	1,889	1,921	2,128	1,999	1,990	2,098	2,067	2,334	2,051
1976													
Crude imports	2,175	2,447	2,600	2,500	2,188	2,039	2,456	2,370	2,517	2,180	2,767	2,704	2,417
Product imports	134	143	158	158	128	233	266	218	199	223	170	151	181
Total imports	2,309	2,590	2,758	2,658	2,316	2,272	2,722	2,588	2,716	2,403	2,937	2,855	2,598
Exports	276	325	395	316	272	324	244	288	274	207	268	288	249
Net imports	2,033	2,265	2,363	2,342	2,044	1,948	2,478	2,300	2,442	2,196	2,669	2,567	2,349
1977													
Crude imports	2,711	2,508	2,198	2,537	1,944	2,079	2,289	2,360					
Product imports	123	117	169	166	145	183	171	216					
Total imports	2,834	2,625	2,367	2,703	2,089	2,262	2,460	2,576					
Exports	277	266	286	356	366	276	278	351					
Net imports	2,557	2,359	2,081	2,347	1,723	1,986	2,182	2,225					
Italy													
1973													
Crude imports	2,308	2,448	2,600	2,598	2,498	2,996	2,779	2,784	2,606	2,548	1,844	N.A.	2,567
Product imports	76	133	97	98	154	98	109	137	232	29	65	N.A.	102
Total imports	2,384	2,581	2,697	2,696	2,652	3,094	2,888	2,921	2,838	2,577	1,909	N.A.	2,669
Exports	604	628	513	595	678	671	775	725	586	630	515	N.A.	579
Net imports	1,780	1,953	2,184	2,101	1,974	2,423	2,113	2,196	2,252	1,947	1,394	N.A.	2,090
1974													
Crude imports	1,576	2,850	2,270	2,527	2,961	2,435	2,575	2,800	2,254	2,270	2,285	2,237	2,397
Product imports	71	60	92	145	126	108	219	190	241	225	378	283	119
Total imports	1,647	2,910	2,362	2,672	3,087	2,543	2,794	2,990	2,495	2,495	2,663	2,520	2,516
Exports	198	645	413	583	444	397	546	433	407	293	375	363	423
Net imports	1,449	2,265	1,949	2,089	2,643	2,146	2,248	2,557	2,088	2,202	2,288	2,157	2,093
1975													
Crude imports	1,858	1,688	1,724	1,841	1,659	1,949	1,706	1,918	2,236	2,117	1,752	1,990	1,941
Product imports	172	229	246	246	319	181	219	142	138	202	191	229	180
Total imports	2,030	1,917	1,970	2,087	1,978	2,130	1,925	2,060	2,374	2,319	1,943	2,219	2,121
Exports	240	264	212	240	246	308	285	413	394	324	252	236	291
Net imports	1,790	1,653	1,758	1,847	1,732	1,822	1,640	1,647	1,980	1,995	1,691	1,983	1,830

Selected Developed Countries: Trends in Oil Imports
(Continued)

Thousand b/d

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Italy (Continued)													
1976													
Crude imports	2,024	2,024	2,024	2,014	2,014	2,014	2,115	2,115	2,115	2,131	2,131	2,131	2,071
Product imports	160	160	160	216	216	216	219	219	219	194	194	194	197
Total imports	2,184	2,184	2,184	2,230	2,230	2,230	2,334	2,334	2,334	2,325	2,325	2,325	2,268
Exports	271	271	271	337	337	337	322	322	322	289	289	289	305
Net imports	1,913	1,913	1,913	1,893	1,893	1,893	2,012	2,012	2,012	2,036	2,036	2,036	1,963
1977 [2]													
Crude imports	2,198	2,198	2,198	2,370	1,931	2,145	1,966	2,025	1,971				
Product imports	232	232	232	198	141	196	145	134	161				
Total imports	2,430	2,430	2,430	2,568	2,072	2,341	2,111	2,159	2,132				
Exports	368	368	368	341	365	434	290	358	292				
Net imports	2,062	2,062	2,062	2,227	1,707	1,907	1,821	1,801	1,840				
United Kingdom													
1973													
Crude imports	2,276	2,090	2,273	2,248	2,402	2,535	2,175	2,818	1,917	2,892	2,415	2,004	2,329
Product imports	615	533	457	359	488	439	323	417	361	416	326	208	409
Total imports	2,891	2,623	2,730	2,607	2,890	2,974	2,498	3,235	2,278	3,308	2,741	2,212	2,738
Exports	464	311	323	329	332	257	430	555	496	464	488	293	396
Net imports	2,427	2,312	2,407	2,278	2,558	2,717	2,068	2,680	1,782	2,844	2,253	1,919	2,342
1974													
Crude imports	2,593	2,439	2,486	2,437	2,486	2,442	2,182	1,994	2,144	2,534	2,259	1,941	2,271
Product imports	440	372	353	306	364	291	326	252	246	324	372	385	314
Total imports	3,033	2,811	2,839	2,743	2,850	2,733	2,508	2,246	2,390	2,858	2,631	2,326	2,585
Exports	491	256	204	238	344	373	331	364	353	385	268	314	321
Net imports	2,542	2,555	2,635	2,505	2,506	2,360	2,177	1,882	2,037	2,473	2,363	2,012	2,264
1975													
Crude imports	2,216	2,030	1,491	1,849	1,802	1,926	1,748	1,776	1,687	2,032	1,429	1,599	1,775
Product imports	442	329	267	290	231	257	262	247	240	303	348	344	292
Total imports	2,658	2,359	1,758	2,139	2,033	2,183	2,010	2,023	1,927	2,335	1,777	1,943	2,067
Exports	310	343	224	226	262	303	317	308	357	423	299	261	300
Net imports	2,348	2,016	1,534	1,913	1,771	1,880	1,693	1,715	1,570	1,912	1,478	1,683	1,767
1976													
Crude imports	1,888	1,986	1,762	1,938	1,698	1,814	1,688	1,615	1,779	1,474	2,112	1,724	1,770
Product imports	302	314	421	301	318	267	297	220	221	200	251	283	282
Total imports	2,190	2,300	2,183	2,239	2,016	2,081	1,985	1,835	2,000	1,674	2,363	2,007	2,052
Exports	333	264	384	332	349	328	407	399	488	464	522	447	392
Net imports	1,857	2,036	1,799	1,907	1,667	1,753	1,578	1,436	1,512	1,210	1,841	1,560	1,660
1977													
Crude imports	1,756	1,511	1,672	1,347	1,701	1,449	1,147	1,263					
Product imports	253	238	261	272	312	286	261	313					
Total imports	2,109	1,749	1,933	1,619	2,013	1,735	1,408	1,576					
Exports	546	575	589	538	539	732	597	747					
Net imports	1,563	1,174	1,344	1,081	1,474	1,003	811	829					
West Germany													
1973													
Crude imports	2,177	2,217	2,226	2,201	2,173	2,306	2,091	2,140	2,297	2,359	2,274	2,067	2,210
Product imports	776	788	690	831	870	748	789	710	828	904	859	709	836
Total imports	2,953	3,005	2,916	3,032	3,043	3,054	2,889	2,850	3,125	3,263	3,133	2,776	3,046
Exports	153	177	164	135	184	174	177	185	155	239	235	141	177
Net imports	2,800	2,828	2,752	2,897	2,859	2,880	2,712	2,665	2,970	3,024	2,898	2,635	2,869
1974													
Crude imports	2,050	1,891	1,973	1,962	1,990	2,245	2,080	2,147	2,055	2,048	2,244	1,918	2,050
Product imports	613	774	767	646	795	740	882	891	806	756	669	689	746
Total imports	2,663	2,665	2,649	2,608	2,785	2,985	2,962	3,038	2,861	2,804	2,913	2,607	2,796
Exports	180	178	238	147	236	141	170	214	193	165	184	186	199
Net imports	2,483	2,487	2,411	2,461	2,549	2,844	2,792	2,824	2,668	2,639	2,729	2,421	2,597
1975													
Crude imports	1,684	1,614	1,453	1,798	1,754	1,911	1,676	1,839	1,810	2,051	2,075	1,935	1,807
Product imports	583	766	606	824	575	920	794	767	873	789	667	718	709
Total imports	2,267	2,380	2,059	2,622	2,329	2,831	2,470	2,606	2,683	2,840	2,742	2,653	2,509
Exports	158	120	113	132	100	121	137	120	133	125	161	126	129
Net imports	2,109	2,260	1,946	2,490	2,229	2,710	2,333	2,486	2,550	2,715	2,581	2,527	2,380
1976													
Crude imports	1,669	1,836	1,717	1,823	1,830	1,847	2,050	2,168	2,220	2,068	2,233	2,273	1,979
Product imports	761	978	792	808	833	871	850	991	811	645	690	899	830
Total imports	2,430	2,814	2,509	2,631	2,663	2,718	2,900	3,159	3,031	2,713	2,923	3,172	2,809
Exports	113	115	148	115	131	101	176	128	168	116	132	160	134
Net imports	2,317	2,699	2,361	2,516	2,532	2,617	2,724	3,031	2,863	2,597	2,791	3,012	2,675
1977													
Crude imports	2,140	2,020	1,894	1,774	1,871	1,920	2,042						
Product imports	705	615	680	813	751	921	969						
Total imports	2,845	2,635	2,574	2,587	2,622	2,841	3,011						
Exports	78	155	128	113	152	147	117						
Net imports	2,767	2,480	2,446	2,474	2,470	2,694	2,894						

[1] Bureau of the Mines data through Apr 1977.
[2] Estimated.

Developed Countries: Exports to OPEC[1]

Million US $ (f.o.b.)

	Algeria	Ecuador	Gabon	Indonesia	Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela	Total
United States														
1974	**315.1**	**325.8**	**32.5**	**530.5**	**1,733.6**	**284.7**	**208.5**	**139.4**	**286.4**	**33.6**	**835.1**	**229.7**	**1,767.7**	**6,722.6**
1975	**631.8**	**409.8**	**58.7**	**810.1**	**3,243.7**	**309.7**	**366.1**	**231.5**	**536.3**	**50.3**	**1,501.8**	**372.2**	**2,243.3**	**10,765.3**
1976	**487.0**	**415.8**	**45.9**	**1,036.0**	**2,776.0**	**381.8**	**471.5**	**276.6**	**769.9**	**78.7**	**2,774.1**	**424.8**	**2,627.8**	**12,565.9**
1st Qtr	75.7	91.3	9.1	271.1	748.3	78.6	111.9	33.1	127.4	16.5	484.9	111.2	591.7	2,750.8
2d Qtr	165.5	99.8	9.0	286.7	617.1	95.4	110.3	52.5	161.6	19.6	743.3	112.0	640.1	3,112.9
3d Qtr	113.0	105.1	8.0	244.5	624.5	159.0	114.6	118.1	197.8	8.5	714.2	81.0	617.4	3,105.7
4th Qtr	132.8	119.6	19.8	233.7	786.1	48.8	134.7	72.9	283.1	34.1	831.7	120.6	778.6	3,596.5
1977														
1st Qtr	116.0	98.0	9.3	187.8	592.7	53.7	152.3	68.5	203.6	24.6	739.5	147.0	669.2	3,062.2
2d Qtr	145.7	133.4	9.5	197.1	609.8	49.5	157.1	89.0	239.6	19.0	838.1	134.3	766.8	3,388.9
Japan														
1974	**154.5**	**113.8**	**7.4**	**1,453.3**	**1,014.9**	**474.4**	**279.5**	**234.4**	**285.1**	**46.7**	**677.5**	**309.2**	**399.0**	**5,449.7**
1975	**260.9**	**177.8**	**14.2**	**1,849.9**	**1,855.3**	**818.8**	**367.1**	**240.2**	**586.0**	**122.3**	**1,350.4**	**420.2**	**360.2**	**8,423.3**
1976	**204.4**	**133.6**	**16.7**	**1,642.4**	**1,709.4**	**626.2**	**720.4**	**327.2**	**575.0**	**229.0**	**1,892.7**	**636.8**	**563.6**	**9,277.4**
1st Qtr	44.3	21.6	1.8	361.6	400.0	128.0	126.2	68.1	112.6	56.5	330.8	130.8	89.4	1,871.7
2d Qtr	56.6	32.8	2.7	381.1	400.0	191.4	172.9	75.0	124.8	42.2	529.6	143.4	118.6	2,271.1
3d Qtr	33.5	34.8	7.3	435.8	437.4	156.4	199.1	93.7	133.2	60.6	569.8	165.1	149.1	2,475.8
4th Qtr	70.0	44.4	4.9	463.9	472.0	150.4	222.2	90.4	204.4	69.7	462.5	197.5	206.5	2,658.8
1977														
1st Qtr	52.0	38.2	5.9	390.6	427.2	131.3	237.5	67.9	211.1	73.2	425.8	224.5	173.8	2,459.0
Apr	48.4	20.8	1.3	124.4	141.8	92.9	84.6	16.6	69.1	34.8	174.1	77.8	79.9	966.5
West Germany														
1974	**482.9**	**82.3**	**28.3**	**324.3**	**1,139.1**	**373.4**	**159.9**	**402.4**	**346.0**	**20.9**	**286.0**	**90.2**	**330.6**	**4,066.3**
1975	**610.1**	**76.5**	**23.9**	**392.7**	**2,105.1**	**1,047.7**	**203.2**	**535.9**	**653.4**	**47.0**	**564.6**	**145.1**	**371.2**	**6,776.4**
1976	**740.2**	**93.2**	**27.1**	**478.4**	**2,294.3**	**884.4**	**304.8**	**523.3**	**867.2**	**67.7**	**1,191.1**	**233.3**	**540.5**	**8,245.5**
1st Qtr	178.1	17.5	5.2	97.6	484.5	216.6	56.0	121.4	185.5	15.0	182.8	45.9	104.2	1,710.3
2d Qtr	152.5	17.9	6.8	104.2	539.7	182.9	63.7	102.0	176.6	22.3	302.3	50.0	117.3	1,838.2
3d Qtr	198.0	34.1	7.5	123.7	590.1	269.2	83.0	153.6	214.2	11.3	324.1	58.3	167.7	2,234.8
4th Qtr	211.6	23.7	7.6	152.9	680.0	215.7	102.1	146.3	290.9	19.1	381.9	79.1	151.3	2,462.2
1977														
1st Qtr	312.8	35.2	8.4	98.4	608.4	205.1	79.6	136.6	260.4	24.5	298.1	81.3	158.4	2,307.2
Apr	69.8	7.4	2.7	28.9	221.1	81.7	28.2	49.0	104.6	6.0	107.4	34.9	57.6	799.3
France														
1974	**1,297.5**	**18.4**	**185.0**	**103.9**	**257.5**	**214.4**	**63.9**	**362.7**	**175.0**	**9.4**	**120.0**	**68.6**	**140.9**	**3,017.2**
1975	**1,904.2**	**18.2**	**335.8**	**120.6**	**631.6**	**409.0**	**97.5**	**405.5**	**462.9**	**15.0**	**198.6**	**134.1**	**175.8**	**4,908.8**
1976	**1,475.2**	**17.7**	**389.8**	**219.3**	**652.7**	**473.5**	**225.9**	**348.7**	**531.8**	**31.7**	**339.3**	**190.8**	**170.4**	**5,066.8**
1st Qtr	392.7	4.3	84.4	63.2	176.3	134.8	34.7	94.2	102.7	7.3	65.3	44.1	36.3	1,240.3
2d Qtr	330.2	4.8	90.6	56.3	162.8	110.4	53.8	99.2	133.7	7.2	92.0	41.1	39.0	1,221.1
3d Qtr	383.1	5.2	114.2	49.5	173.8	111.3	48.1	73.0	136.6	6.6	78.7	50.2	49.4	1,279.7
4th Qtr	369.2	3.4	100.6	50.3	139.8	117.0	89.3	82.3	158.8	10.6	103.3	55.4	45.7	1,325.7
1977														
1st Qtr	363.7	5.5	121.0	56.2	154.3	127.7	36.4	98.6	184.8	20.7	114.3	52.2	56.2	1,391.6
Apr	104.3	1.5	45.6	19.7	57.0	32.2	18.0	33.3	55.0	4.1	59.4	13.6	16.0	459.7
United Kingdom														
1974	**128.1**	**31.8**	**8.4**	**109.2**	**653.2**	**139.9**	**139.9**	**146.5**	**520.3**	**51.6**	**280.4**	**227.0**	**117.8**	**2,554.1**
1975	**173.7**	**38.4**	**6.3**	**133.4**	**1,097.7**	**302.2**	**217.5**	**236.8**	**1,125.9**	**121.6**	**440.0**	**440.8**	**200.3**	**4,534.6**
1976	**183.7**	**41.2**	**7.3**	**144.4**	**921.1**	**273.5**	**257.1**	**241.8**	**1,389.0**	**155.9**	**710.6**	**579.0**	**229.9**	**5,134.5**
1st Qtr	50.0	7.0	2.1	33.4	235.3	95.5	52.0	57.1	339.8	38.3	131.7	141.1	55.1	1,238.4
2d Qtr	47.0	9.1	1.9	38.7	250.9	60.8	59.8	61.0	338.4	44.3	161.0	137.4	48.9	1,259.2
3d Qtr	43.9	11.4	1.5	32.2	226.2	63.4	69.8	64.7	340.5	34.0	193.8	130.3	50.8	1,262.5
4th Qtr	42.8	13.7	1.8	40.1	208.7	53.8	75.5	59.0	370.3	39.3	224.1	170.2	75.1	1,374.4
1977														
1st Qtr	43.8	22.3	2.0	42.7	274.3	66.4	79.1	61.9	407.2	42.6	209.7	209.1	59.8	1,520.9
2d Qtr	34.3	26.1	3.4	30.2	282.6	70.0	113.6	77.5	482.9	57.0	250.9	194.7	64.2	1,687.4

Developed Countries: Exports to OPEC[1]
(Continued)

Million US $ (f.o.b.)

	Algeria	Ecuador	Gabon	Indonesia	Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela	Total
Italy														
1974	**325.7**	**25.5**	**6.6**	**58.0**	**282.4**	**96.0**	**65.7**	**853.8**	**131.0**	**11.0**	**133.2**	**37.3**	**211.6**	**2,237.8**
1975	**559.7**	**30.2**	**13.9**	**85.5**	**566.3**	**259.5**	**116.5**	**1,032.2**	**298.5**	**22.6**	**323.3**	**87.6**	**321.9**	**3,717.7**
1976	**408.5**	**22.6**	**14.9**	**53.1**	**730.6**	**203.2**	**175.2**	**955.5**	**317.4**	**25.7**	**636.1**	**133.2**	**350.4**	**4,026.4**
1st Qtr	104.5	4.3	2.4	12.3	140.4	42.7	26.3	186.0	46.2	6.7	96.3	23.8	63.9	755.8
2d Qtr	77.9	4.8	3.2	18.4	193.5	67.6	39.1	232.8	74.2	5.2	127.5	28.8	77.7	950.7
3d Qtr	97.1	6.2	4.0	11.8	198.6	48.4	46.9	265.6	92.4	7.5	155.0	31.0	92.1	1,056.6
4th Qtr	129.0	7.3	5.3	10.6	198.1	44.5	62.9	271.1	104.6	6.3	257.3	49.6	116.7	1,263.3
1977														
1st Qtr	126.8	5.9	7.3	11.5	193.6	53.6	53.9	269.7	122.4	9.0	211.4	45.6	124.8	1,235.5
Apr & May	99.4	6.9	6.7	6.8	153.6	33.0	43.8	229.4	102.3	7.5	160.9	33.5	97.1	980.9
Canada														
1974	**161.2**	**13.4**	**0**	**54.9**	**61.1**	**19.6**	**4.9**	**5.9**	**25.8**	**3.6**	**18.0**	**3.9**	**253.3**	**625.6**
1975	**99.3**	**21.4**	**0.5**	**63.7**	**144.7**	**66.5**	**15.7**	**22.4**	**37.6**	**1.5**	**34.3**	**4.5**	**314.5**	**826.6**
1976	**94.6**	**24.5**	**2.5**	**77.1**	**145.9**	**36.2**	**22.6**	**9.6**	**32.6**	**4.3**	**107.8**	**11.4**	**360.4**	**929.5**
1st Qtr	7.1	1.9	0.1	7.9	32.4	21.7	3.9	3.3	9.0	1.2	30.6	2.5	45.6	167.2
2d Qtr	20.6	13.5	1.3	15.4	35.2	8.2	2.6	3.7	6.6	0.2	12.8	3.1	60.6	183.8
3d Qtr	32.4	4.5	0.4	20.9	42.7	5.1	4.7	1.4	6.8	1.4	13.7	2.5	133.5	270.0
4th Qtr	34.5	4.6	0.7	32.9	35.6	1.2	11.4	1.2	10.2	1.5	50.7	3.3	120.7	308.5
1977														
1st Qtr	29.6	3.3	0.6	24.7	35.1	22.1	13.2	2.0	9.8	1.1	28.6	3.4	73.6	247.1
2d Qtr	31.0	5.3	0.3	10.4	31.2	11.8	8.3	5.5	6.5	0.6	22.7	5.1	139.4	278.1

[1] Data are unadjusted.

Developed Countries: Imports From OPEC[1]

Million US $ (c.i.f.)

	Algeria	Ecuador	Gabon	Indonesia	Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela	Total
United States[2]														
1974	**1,090.5**	**473.0**	**162.3**	**1,688.1**	**2,132.2**	**0.9**	**13.4**	**1.4**	**3,286.2**	**79.6**	**1,671.2**	**366.3**	**4,671.1**	**15,636.2**
1975	**1,358.6**	**460.8**	**196.9**	**2,220.6**	**1,399.8**	**19.1**	**111.4**	**1,045.7**	**3,281.5**	**56.5**	**2,624.6**	**683.8**	**3,623.9**	**17,083.2**
1976	**2,209.4**	**539.0**	**189.8**	**3,004.3**	**1,480.1**	**110.0**	**37.6**	**2,243.4**	**4,937.6**	**119.0**	**5,212.9**	**1,359.2**	**3,574.6**	**25,016.9**
1st Qtr	447.5	109.4	51.3	714.4	378.0	1.2	25.7	485.0	1,016.8	22.2	1,152.9	272.7	893.3	5,570.4
2d Qtr	529.9	123.5	65.0	692.5	345.3	0.3	4.3	478.7	1,141.5	8.2	1,166.2	288.2	738.1	5,581.7
3d Qtr	674.8	136.2	20.3	851.1	397.1	35.1	4.9	603.9	1,365.3	57.4	1,506.3	363.9	935.5	6,951.8
4th Qtr	557.2	169.9	53.2	746.3	359.7	73.4	2.7	675.8	1,414.0	31.2	1,387.5	434.4	1,007.7	6,913.0
1977														
1st Qtr	695.7	155.4	58.2	914.0	657.5	45.1	66.2	820.5	1,646.7	41.1	1,603.2	405.8	1,214.6	8,324.0
2d Qtr	743.2	171.1	62.3	926.7	699.3	126.3	72.5	1,080.5	1,598.1	74.3	1,720.8	439.0	958.5	8,672.6
Japan														
1974	**34.3**	**22.3**	**6.8**	**4,569.3**	**4,767.0**	**201.6**	**2,131.9**	**364.2**	**448.9**	**22.1**	**5,238.2**	**2,116.6**	**46.4**	**19,969.6**
1975	**36.4**	**13.5**	**12.8**	**3,431.2**	**4,978.3**	**395.6**	**2,009.7**	**280.1**	**278.6**	**27.6**	**6,132.9**	**1,773.4**	**33.9**	**19,404.0**
1976	**10.3**	**22.0**	**17.9**	**4,093.3**	**4,453.8**	**579.1**	**2,015.9**	**206.7**	**108.7**	**30.4**	**7,834.0**	**2,471.6**	**33.6**	**21,877.3**
1st Qtr	8.7	6.0	5.9	962.5	974.2	119.3	535.1	16.0	73.7	9.4	1,856.7	635.5	9.8	5,212.8
2d Qtr	0.1	6.6	4.3	1,002.0	1,179.1	136.2	466.4	62.3	11.5	4.8	1,954.7	564.2	7.6	5,399.8
3d Qtr	0.7	4.1	4.8	1,021.7	952.6	119.1	505.1	69.0	18.2	11.3	2,064.4	629.5	5.9	5,406.4
4th Qtr	0.8	5.3	2.9	1,107.1	1,347.9	204.5	509.3	59.4	5.3	4.9	1,958.2	642.4	10.3	5,858.3
1977														
1st Qtr	1.7	5.0	2.5	1,252.5	1,181.0	187.4	514.8	14.3	3.8	45.1	2,328.1	699.0	10.6	6,245.8
Apr	0	1.6	0.4	390.9	249.6	62.4	181.1	2.7	4.2	23.5	678.9	177.4	3.8	1,776.5
West Germany														
1974	**1,090.8**	**66.1**	**97.7**	**188.7**	**1,240.3**	**305.3**	**355.0**	**1,633.1**	**1,101.4**	**92.9**	**2,044.1**	**752.1**	**243.9**	**9,211.4**
1975	**1,025.4**	**62.0**	**107.4**	**153.4**	**1,467.4**	**127.9**	**226.9**	**1,391.1**	**962.4**	**124.0**	**1,623.1**	**736.0**	**232.1**	**8,239.1**

Developed Countries: Imports From OPEC[1]
(Continued)

Million US $ (c.i.f.)

	Algeria	Ecuador	Gabon	Indonesia	Iran	Iraq	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Venezuela	Total
West Germany (Continued)														
1976	**1,145.7**	**67.3**	**69.3**	**213.6**	**1,987.5**	**154.7**	**182.1**	**2,103.3**	**975.1**	**124.6**	**1,798.1**	**691.1**	**207.9**	**9,720.3**
1st Qtr	264.0	13.4	21.2	48.2	426.0	27.3	51.3	473.6	251.6	26.3	388.7	153.6	44.3	2,189.5
2d Qtr	292.8	14.4	21.2	35.4	410.3	33.2	55.3	474.9	232.8	41.3	367.3	167.4	76.7	2,223.0
3d Qtr	305.7	12.1	13.0	62.1	526.8	57.0	38.1	544.0	238.7	0.1	554.8	177.9	45.1	2,575.4
4th Qtr	283.2	27.4	13.9	67.9	624.4	37.2	37.4	610.8	252.0	56.9	487.3	192.2	41.8	2,732.4
1977														
1st Qtr	328.6	20.8	16.0	96.8	496.1	38.8	44.6	623.8	232.3	16.6	436.7	197.0	30.0	2,578.1
Apr	66.0	7.3	4.0	24.0	160.2	0.5	20.0	152.5	84.2	22.3	131.7	72.4	10.5	755.6
France														
1974	**957.7**	**9.7**	**320.8**	**61.5**	**716.3**	**1,242.3**	**938.5**	**386.8**	**872.8**	**264.0**	**3,028.3**	**1,184.6**	**133.5**	**10,116.8**
1975	**747.2**	**15.7**	**246.8**	**55.2**	**1,286.1**	**1,128.5**	**652.0**	**200.6**	**859.4**	**211.9**	**3,041.6**	**1,134.4**	**86.1**	**9,665.5**
1976	**691.4**	**13.2**	**293.8**	**97.2**	**1,436.1**	**1,590.6**	**409.1**	**320.3**	**749.4**	**326.1**	**4,079.1**	**1,235.3**	**94.0**	**11,335.6**
1st Qtr	179.8	3.7	64.2	14.4	358.9	281.5	63.1	78.7	207.3	98.4	982.4	452.7	32.6	2,817.7
2d Qtr	170.7	2.8	74.1	21.5	315.8	331.6	120.4	89.4	173.0	74.2	977.1	238.5	20.7	2,609.8
3d Qtr	155.3	1.9	79.1	27.1	331.4	400.0	111.7	65.4	152.6	80.0	1,033.5	264.4	20.3	2,722.7
4th Qtr	185.6	4.8	76.4	34.2	430.0	577.5	113.9	86.8	216.5	73.5	1,086.1	279.7	20.4	3,185.4
1977														
1st Qtr	196.5	5.5	88.1	30.7	448.6	470.7	125.5	65.4	209.4	99.5	1,033.5	263.5	19.5	3,056.4
Apr	54.5	3.5	32.8	13.6	134.1	135.4	23.8	16.3	84.9	16.4	304.5	53.3	6.0	879.1
United Kingdom														
1974	**83.8**	**5.1**	**66.1**	**33.8**	**1,202.9**	**248.6**	**1,334.0**	**913.6**	**860.6**	**388.5**	**2,757.8**	**483.9**	**315.9**	**8,694.6**
1975	**189.8**	**4.6**	**8.1**	**33.2**	**1,554.3**	**226.1**	**935.5**	**288.5**	**685.0**	**348.5**	**1,915.3**	**356.6**	**366.8**	**6,912.3**
1976	**147.3**	**4.6**	**16.3**	**39.9**	**1,879.0**	**492.6**	**1,042.7**	**297.4**	**574.9**	**456.1**	**1,763.9**	**362.6**	**215.4**	**7,292.7**
1st Qtr	54.6	0.9	1.2	7.8	425.9	70.1	223.3	70.1	160.9	149.0	492.1	98.2	70.1	1,824.2
2d Qtr	30.2	1.2	9.6	8.9	478.6	69.5	230.0	42.0	167.9	145.3	386.5	103.0	64.9	1,737.6
3d Qtr	41.4	1.3	3.0	13.4	473.3	196.7	225.7	98.2	138.4	103.3	444.9	103.2	50.8	1,893.6
4th Qtr	21.1	1.2	2.5	9.8	501.2	156.3	363.7	87.1	107.7	58.5	440.4	58.2	29.6	1,837.3
1977														
1st Qtr	26.8	0.9	2.3	9.2	482.0	138.5	224.3	29.8	159.3	99.4	498.6	92.0	19.9	1,783.0
2d Qtr	20.7	2.2	1.1	11.0	359.3	146.0	282.7	81.0	68.9	32.7	558.7	102.1	35.3	1,701.7
Italy														
1974	**268.2**	**25.1**	**56.0**	**72.4**	**1,123.3**	**1,166.4**	**478.6**	**2,364.8**	**360.6**	**208.1**	**3,047.0**	**108.3**	**105.3**	**9,384.1**
1975	**405.3**	**34.0**	**41.7**	**53.4**	**1,134.5**	**1,672.3**	**357.9**	**1,248.4**	**67.6**	**127.1**	**2,351.2**	**201.1**	**159.7**	**7,854.2**
1976	**296.8**	**25.4**	**16.4**	**114.7**	**1,218.9**	**1,304.2**	**203.2**	**1,587.0**	**55.8**	**140.1**	**2,423.8**	**236.8**	**208.1**	**7,831.2**
1st Qtr	81.3	4.8	1.9	21.4	290.5	313.3	17.9	351.8	10.7	33.5	471.3	62.9	27.8	1,689.1
2d Qtr	73.1	6.1	5.0	24.9	309.1	284.5	26.5	481.4	12.7	39.9	729.8	49.6	49.1	2,091.7
3d Qtr	76.5	7.8	5.5	30.1	303.4	356.9	71.9	403.1	17.8	18.9	632.6	41.5	68.9	2,034.9
4th Qtr	65.9	6.7	4.0	38.3	315.9	349.5	86.9	350.7	14.6	47.8	590.1	82.8	62.3	2,015.5
1977														
1st Qtr	40.5	7.7	13.2	33.3	340.9	370.9	168.2	355.1	30.5	26.5	644.8	96.5	37.5	2,165.6
Apr & May	32.7	7.9	5.3	26.7	249.6	297.0	96.2	273.8	17.3	20.0	517.7	41.0	20.2	1,605.4
Canada														
1974	**6.9**	**40.0**	**4.9**	**4.7**	**633.6**	**37.2**	**66.0**	**31.3**	**55.1**	**0**	**325.4**	**88.0**	**1,320.0**	**2,613.1**
1975	**1.7**	**20.8**	**25.4**	**14.0**	**745.3**	**131.7**	**108.7**	**35.5**	**77.0**	**6.3**	**733.3**	**138.2**	**1,088.0**	**3,125.9**
1976	**66.1**	**30.6**	**62.4**	**18.4**	**704.9**	**135.5**	**22.7**	**106.1**	**157.6**	**0**	**488.8**	**62.8**	**1,314.8**	**3,170.7**
1st Qtr	19.1	3.8	11.2	2.2	211.0	30.6	6.4	51.1	85.1	0	118.3	36.0	268.2	843.0
2d Qtr	19.5	7.2	8.1	4.2	211.5	28.4	6.5	35.0	48.8	0	126.6	19.7	439.3	954.8
3d Qtr	4.4	5.0	22.8	6.0	132.5	47.9	9.8	20.0	15.9	0	141.4	7.1	302.4	715.2
4th Qtr	23.1	14.6	20.3	6.0	149.9	28.6	0	0	7.8	0	102.5	0	304.9	657.7
1977														
1st Qtr	9.2	22.1	13.8	3.9	125.7	23.0	0	0	13.3	0	191.9	0	338.8	741.7
2d Qtr	11.0	15.9	0	6.4	136.5	0.1	0	0	0.1	0	167.3	0	339.5	676.8

[1] Data are unadjusted.
[2] Data are f.a.s.
[3] Data are f.o.b.

Selected OECD Countries: Trends in Inland Oil Consumption

Thousand b/d

		1972	1973	1974	1975	1976	1977
	Annual						
United States [1]	**Average**	**16,367**	**17,308**	**16,653**	**16,322**	**17,444**	
	Jan	16,735	18,713	17,286	18,004	18,598	20,481
	Feb	17,861	19,094	17,366	17,084	17,429	20,427
	Mar	16,870	17,216	16,104	16,315	17,299	18,056
	Apr	15,529	15,921	15,929	16,048	16,671	17,570
	May	14,801	16,626	15,726	15,155	15,977	(est.) 17,252
	Jun	15,615	16,481	16,117	15,610	16,836	(est.) 17,600
	Jul	14,821	16,372	16,349	15,740	16,613	(est.) 17,697
	Aug	15,936	17,499	16,550	15,806	16,642	(est.) 18,533
	Sep	15,489	16,656	16,024	15,768	16,825	(est.) 17,885
	Oct	16,455	17,202	17,050	16,377	17,052	
	Nov	17,610	18,492	17,351	15,777	18,847	
	Dec	18,738	17,538	18,013	18,185	20,506	
	Annual						
Canada	**Average**	**1,511**	**1,597**	**1,630**	**1,595**	**1,658**	
	Jan	1,536	1,667	1,823	1,691	1,785	1,797
	Feb	1,793	1,747	1,863	1,872	1,754	1,919
	Mar	1,612	1,584	1,659	1,558	1,747	1,664
	Apr	1,367	1,431	1,560	1,592	1,518	1,526
	May	1,374	1,486	1,577	1,471	1,509	1,523
	Jun	1,334	1,474	1,455	1,550	1,560	1,633
	Jul	1,294	1,490	1,534	1,493	1,531	1,530
	Aug	1,394	1,557	1,463	1,449	1,585	
	Sep	1,402	1,427	1,415	1,469	1,514	
	Oct	1,577	1,680	1,680	1,555	1,560	
	Nov	1,685	1,801	1,714	1,577	1,822	
	Dec	1,782	1,828	1,831	1,880	2,008	
	Annual						
Japan	**Average**	**N.A.**	**5,000**	**4,872**	**4,568**	**4,786**	
	Jan	N.A.	5,036	5,103	4,729	4,941	5,428
	Feb	N.A.	5,352	5,664	5,191	5,246	6,019
	Mar	N.A.	5,306	5,407	4,918	5,165	5,540
	Apr	N.A.	4,737	4,706	4,202	4,526	4,713
	May	N.A.	4,597	4,568	4,041	4,218	4,313
	Jun	N.A.	4,776	4,520	4,135	4,429	4,480
	Jul	N.A.	4,586	4,385	4,265	4,416	4,700
	Aug	N.A.	4,684	4,576	4,234	4,461	
	Sep	N.A.	4,778	4,720	4,543	4,517	
	Oct	N.A.	5,093	4,614	4,409	4,523	
	Nov	N.A.	5,559	4,925	4,747	5,160	
	Dec	N.A.	5,526	5,330	5,447	5,846	
	Annual						
Austria	**Average**	**203**	**227**	**203**	**199**	**215**	
	Jan	189	220	236	183	207	200
	Feb	221	225	220	190	208	208
	Mar	212	224	160	172	209	182
	Apr	183	204	169	184	156	197
	May	174	210	172	156	169	166
	Jun	181	200	169	186	189	208
	Jul	179	221	214	210	219	192
	Aug	187	222	218	223	229	213
	Sep	213	227	222	232	246	
	Oct	227	253	243	226	233	
	Nov	246	276	215	201	252	
	Dec	230	234	203	229	261	
	Annual						
Belgium/Luxembourg	**Average**	**485**	**505**	**440**	**416**	**449**	
	Jan	535	543	512	550	498	552
	Feb	591	589	528	558	547	507
	Mar	546	570	392	410	469	517
	Apr	470	565	383	465	460	

Selected OECD Countries: Trends in Inland Oil Consumption
(Continued)

Thousand b/d

		1972	1973	1974	1975	1976	1977
Belgium/Luxembourg (Continued)	May	454	483	419	363	357	
	Jun	464	463	376	366	383	
	Jul	346	359	339	288	308	
	Aug	367	389	352	331	361	
	Sep	479	465	478	372	425	
	Oct	484	556	534	442	424	
	Nov	563	558	427	439	532	
	Dec	530	503	542	508	628	
	Annual Average				**301**	**307**	
Denmark	Jan	N.A.	N.A.	N.A.	332	358	370
	Feb	N.A.	N.A.	N.A.	380	398	405
	Mar	N.A.	N.A.	N.A.	317	367	362
	Apr	N.A.	N.A.	N.A.	354	307	340
	May	N.A.	N.A.	N.A.	258	242	241
	Jun	N.A.	N.A.	N.A.	257	250	236
	Jul	N.A.	N.A.	N.A.	218	184	192
	Aug	N.A.	N.A.	N.A.	264	261	293
	Sep	N.A.	N.A.	N.A.	262	274	
	Oct	N.A.	N.A.	N.A.	302	280	
	Nov	N.A.	N.A.	N.A.	324	356	
	Dec	N.A.	N.A.	N.A.	353	414	
	Annual Average	**1,985**	**2,219**	**2,094**	**1,925**	**2,071**	
France	Jan	2,276	2,743	2,523	2,190	2,432	2,518
	Feb	2,450	2,687	2,389	2,243	2,492	2,386
	Mar	2,100	2,528	2,249	1,952	2,372	2,109
	Apr	1,848	2,296	1,970	2,202	2,116	2,044
	May	1,743	1,890	1,915	1,640	1,795	1,846
	Jun	1,597	1,685	2,103	1,642	1,603	1,717
	Jul	1,444	1,566	1,703	1,491	1,624	1,349
	Aug	1,441	1,495	1,506	1,300	1,668	1,390
	Sep	1,950	1,932	1,996	1,785	1,966	1,789
	Oct	2,106	2,482	2,045	1,917	1,908	
	Nov	2,332	2,593	2,260	2,077	2,204	
	Dec	2,574	2,768	2,492	2,658	2,687	
	Annual Average	**1,435**	**1,525**	**1,521**	**1,468**	**1,502**	
Italy	Jan	1,720	1,781	1,755	1,792	1,775	1,683
	Feb	1,756	1,866	1,760	1,767	1,743	1,809
	Mar	1,450	1,710	1,579	1,558	1,641	1,548
	Apr	1,169	1,420	1,421	1,530	1,423	1,363
	May	1,138	1,285	1,349	1,174	1,253	1,252
	Jun	1,101	1,255	1,314	1,289	1,236	1,324
	Jul	1,175	1,303	1,368	1,234	1,355	1,233
	Aug	1,129	1,255	1,287	1,105	1,372	1,135
	Sep	1,450	1,462	1,527	1,465	1,592	1,682
	Oct	1,650	1,610	1,569	1,679	1,464	
	Nov	1,702	1,551	1,580	1,448	1,393	
	Dec	1,899	1,698	1,753	1,600	1,779	
	Annual Average	**496**	**507**	**444**	**412**	**487**	
Netherlands	Jan	509	584	468	399	480	521
	Feb	591	586	522	430	542	524
	Mar	557	542	438	379	543	518
	Apr	512	541	530	474	443	424
	May	453	475	432	390	453	393
	Jun	430	436	427	403	462	456
	Jul	374	408	415	354	426	388
	Aug	435	437	414	364	446	
	Sep	440	485	440	412	493	

Selected OECD Countries: Trends in Inland Oil Consumption
(Continued)

Thousand b/d

		1972	1973	1974	1975	1976	1977
Netherlands (Continued)	Oct	515	594	472	440	469	
	Nov	581	503	440	419	517	
	Dec	567	505	433	484	576	
	Annual						
Norway	**Average**	**N.A.**	**N.A.**	**143**	**150**	**163**	
	Jan	N.A.	N.A.	155	142	161	177
	Feb	N.A.	N.A.	154	171	180	202
	Mar	N.A.	N.A.	124	137	181	189
	Apr	N.A.	N.A.	126	149	145	162
	May	N.A.	N.A.	118	145	147	150
	Jun	N.A.	N.A.	141	130	153	159
	Jul	N.A.	N.A.	113	120	130	131
	Aug	N.A.	N.A.	125	140	146	156
	Sep	N.A.	N.A.	151	161	168	
	Oct	N.A.	N.A.	161	162	167	
	Nov	N.A.	N.A.	174	181	175	
	Dec	N.A.	N.A.	180	162	197	
	Annual						
Spain	**Average**	**471**	**581**	**626**	**667**	**744**	
	Jan	483	539	610	720	758	740
	Feb	508	568	639	682	785	727
	Mar	461	564	571	625	769	660
	Apr	447	537	595	688	742	634
	May	444	523	620	622	685	669
	Jun	472	530	608	610	714	672
	Jul	457	466	630	624	755	677
	Aug	462	667	617	584	685	615
	Sep	477	576	636	667	734	
	Oct	459	669	677	713	742	
	Nov	500	646	653	706	780	
	Dec	515	681	650	735	782	
	Annual						
Sweden	**Average**	**N.A.**	**533**	**490**	**478**	**529**	
	Jan	N.A.	603	521	511	565	606
	Feb	N.A.	555	415	547	530	600
	Mar	N.A.	540	427	479	539	545
	Apr	N.A.	506	441	532	450	499
	May	N.A.	524	495	392	395	466
	Jun	N.A.	420	464	511	410	409
	Jul	N.A.	387	423	362	382	377
	Aug	N.A.	455	463	459	483	
	Sep	N.A.	492	516	503	571	
	Oct	N.A.	656	553	462	585	
	Nov	N.A.	645	568	446	697	
	Dec	N.A.	618	581	538	740	
	Annual						
United Kingdom	**Average**	**1,954**	**1,974**	**1,857**	**1,633**	**1,603**	
	Jan	2,121	2,315	2,045	1,981	1,679	1,830
	Feb	2,401	2,313	2,127	1,907	1,865	1,844
	Mar	2,249	2,271	2,133	1,731	1,879	1,818
	Apr	2,027	2,038	1,899	1,826	1,716	1,670
	May	1,851	1,939	1,704	1,482	1,417	1,546
	Jun	1,745	1,697	1,545	1,416	1,416	1,454
	Jul	1,519	1,637	1,531	1,322	1,346	1,302
	Aug	1,527	1,615	1,513	1,208	1,276	
	Sep	1,703	1,727	1,663	1,501	1,477	
	Oct	1,959	2,150	2,049	1,707	1,544	
	Nov	2,194	2,258	2,108	1,723	1,750	
	Dec	2,132	1,906	1,983	1,821	1,869	

Selected OECD Countries: Trends in Inland Oil Consumption
(Continued)

Thousand b/d

		1972	1973	1974	1975	1976	1977
West Germany	Annual Average	2,521	2,693	2,408	2,319	2,507	
	Jan	2,545	2,868	2,556	2,183	2,464	2,389
	Feb	2,803	2,850	1,969	2,455	2,497	2,441
	Mar	2,525	2,707	2,173	2,234	2,747	2,519
	Apr	2,347	2,809	2,539	2,431	2,339	2,425
	May	2,335	2,546	2,403	2,253	2,320	2,359
	Jun	2,632	2,674	2,414	2,106	2,393	2,495
	Jul	2,188	2,196	2,548	2,319	2,624	2,381
	Aug	2,444	2,738	2,476	2,360	2,515	2,468
	Sep	2,487	2,618	2,473	2,309	2,521	
	Oct	2,522	2,969	2,613	2,328	2,391	
	Nov	2,667	2,883	2,432	2,361	2,700	
	Dec	2,783	2,481	2,261	2,502	2,571	

[1] Including bunkers, refinery fuel, and losses.
[2] Principal products only.

Selected OECD Countries: Oil Stocks

Thousand Barrels, End of Month

	United States	Japan	Canada	Austria	Belgium	Denmark	France	Ireland	Italy
1973 Sep	1,057,911 [1]	300,000	113,193	N.A.	N.A.	30,996	194,122	5,555	N.A.
1974 Jan	1,017,333 [1]	275,000	125,289	7,650	35,018	25,017	174,594	5,490	N.A.
Mar	995,365 [1]	257,000	116,060	8,358	25,404	25,849	171,229	6,037	143,876
Jun	1,102,467 [1]	325,000	N.A.	10,454	31,375	28,025	196,406	6,190	163,922
Sep	1,156,105 [1]	359,000	148,305	9,278	37,011	34,507	238,630	6,504	177,310
Dec	1,115,916 [1]	334,000	142,233	9,402	40,274	37,223	235,848	7,424	173,609
1975 Jan	1,099,144	330,000	136,590	9,826	40,406	33,609	230,271	7,687	147,431
Mar	1,076,360	296,000	133,805	9,220	38,902	34,595	215,365	7,439	150,124
Jun	1,071,150	314,000	140,617	10,257	36,704	34,566	203,831	7,665	169,776
Sep	1,147,338	330,000	147,939	8,913	41,420	44,238	223,942	7,599	174,010
Dec	1,132,955	325,000	138,462	7,329	40,194	40,325	195,998	7,081	N.A.
1976 Jan [2]	1,102,282	308,000	128,356	6,877	38,508	39,223	182,887	6,825	N.A.
Mar	1,060,489	290,000	121,490	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Jun	1,108,703	325,000	132,174	6,855	41,676	31,193	167,017	7,315	N.A.
Sep	1,206,690	365,000	138,211	8,110	41,537	40,661	209,692	7,877	N.A.
Dec	1,129,445	359,000	125,934	7,680	43,092	37,478	203,407	7,628	157,687
1977 Jan	1,064,915	364,000	126,025	7,059	43,683	36,383	192,676	7,242	155,811
Feb	1,050,507	315,000	120,857	8,358	42,880	33,544	188,347	7,271	154,322
Mar	1,086,822	327,000	125,757	9,074	42,880	33,361	183,303	7,110	151,110
Apr	1,121,008	332,000	122,770	9,454	43,187	32,551	187,048	7,154	166,973
May	1,171,222	358,000	129,467	9,373	44,085	34,128	166,710	8,497	170,983
Jun	1,209,500	362,000	138,808	8,541	43,618	36,215	N.A.	9,388	N.A.
Jul	1,239,100	356,000	139,053	N.A.	N.A.	N A.	N.A.	N.A.	N.A.
Aug	1,251,800	361,000	N.A.	N.A.	N.A.	N A.	N.A.	N.A.	N.A.
Sep	1,284,900	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

	Luxem-bourg	Nether-lands	Norway	Portugal	Spain	Sweden	Switzer-land	Turkey	United Kingdom	West Germany
1973 Sep	N.A.	N.A.	8,045	7,125	N.A.	43,398	26,514	N.A.	152,261	172,010
1974 Jan	N.A.	N.A.	8,446	5,745	40,449	37,668	25,995	N.A.	131,239	149,190
Mar	N.A.	N.A.	9,176	7,840	47,414	39,128	26,382	9,979	134,816	165,549
Jun	N.A.	N.A.	10,476	7,307	50,217	43,034	26,966	9,446	167,637	170,827
Sep	N.A.	N.A.	10,541	7,264	53,538	47,815	28,309	12,527	175,236	187,968
Dec	N.A.	66,452	7,037	7,037	53,261	44,749	29.638	9,345	160,593	187,938
1975 Jan	1,708	65,269	8,650	6,344	40,449	43,727	29,025	8,234	169,623	171,192
Mar	1,745	61,430	9,672	6,110	50,611	39,785	26,928	8,088	145,248	158,169
Jun	2,102	62,941	9,789	5,928	48,633	34,675	27,652	10,220	147,949	161,520
Sep	2,139	63,758	10,986	6,446	51,677	40,114	29,623	11,213	154,921	184,267
Dec	2,044	60,086	11,614	8,541	50,201	43,180	29,762	N.A.	138,941	186,668
1976 Jan	2,015	53,195	12,410	5,533	48,728	42,742	29,200	N.A.	N.A.	184,829
Mar	1,832	52,932	9,570	7,234	N.A.	37,668	27,528	N.A.	N.A.	175,483
Jun	1,971	54,560	11,154	6,658	N.A.	37,194	28,587	N.A.	135,291	189,092
Sep	1,986	61,656	12,038	6,066	50,582	37,194	29,799	N.A.	140,686	201,845
Dec	2,008	56,568	12,468	8,176	N.A.	48,326	31,178	9,541	136,065	218,540
1977 Jan	2,008	53,618	12,673	9,855	61,320	45,954	32,047	8,636	133,320	217,474
Feb	1,964	52,772	9,526	9,162	60,240	42,012	31,383	7,884	130,378	217,620
Mar	1,978	53,078	9,833	7,205	66,576	40,478	31,032	7,169	124,217	211,423
Apr	2,015	54,013	11,198	7,650	75,154	40,260	31,463	9,716	121,976	215,394
May	1,993	59,546	11,665	7942	64,860	46,362	31,901	11,972	125,531	214,562
Jun	2,022	58,765	12,695	7,753	67,240	46,070	33,514	10,731	129,020	219,781

[1] Estimated.

[2] As of January 1977, US Bureau of Mines changed the reporting of crude oil stocks to include foreign crude oil not yet received at refineries. Figures for 1976 and 1977 have been computed on the new basis.

Estimated OECD Oil Consumption [1]

Million b/d

	1st Qtr	2d Qtr	3d Qtr	4th Qtr
1973	43.2	37.6	36.8	42.4
1974	39.6	35.9	36.3	39.0
1975	37.9	34.2	34.2	37.6
1976	39.9	35.7	36.2	41.1
1977	42.5	37.1		

[1] Excluding Australia and New Zealand, and including US refinery gain.

Western Europe: Oil Spot Market Prices

US $ per Barrel

	F.O.B. Rotterdam [1]				F.O.B. Italy [2]			
	Heavy Fuel Oil				Heavy Fuel Oil			
	1% Sulfur	3.5% Sulfur	Gas Oil	Gasoline (Premium)	1% Sulfur	3.5% Sulfur	Gas Oil	Gasoline (Premium)
1974								
1st Qtr	14.02	12.77	15.13	19.76	13.87	12.88	13.95	19.26
2d Qtr	10.15	9.70	11.77	19.61	9.90	9.35	10.93	18.77
3d Qtr	9.87	9.24	12.34	13.92	9.61	9.23	11.96	13.15
4th Qtr	11.09	10.11	12.33	13.26	10.29	9.96	11.68	12.08
1975								
1st Qtr	11.97	10.49	11.18	14.20	10.57	10.24	11.10	13.23
2d Qtr	10.61	9.68	12.90	15.95	10.40	10.16	12.24	15.28
3d Qtr	9.33	8.62	14.40	15.02	8.81	8.30	13.87	14.64
4th Qtr	9.53	8.33	14.84	15.85	8.99	8.38	14.56	15.24
1976								
1st Qtr	10.39	9.84	13.79	17.10	9.95	9.65	13.59	16.48
2d Qtr	10.40	9.56	14.08	19.24	10.18	9.73	13.90	18.30
3d Qtr	11.06	9.99	14.40	18.02	10.34	10.06	14.19	17.37
4th Qtr	12.07	10.76	14.57	17.44	11.64	10.85	14.48	16.83
1977								
Jan	13.51	12.21	16.03	16.94	13.75	12.30	15.70	16.51
Feb	13.52	11.88	15.83	16.80	13.99	12.30	16.39	16.65
Mar	12.71	11.04	15.54	16.71	12.85	11.59	15.57	16.51
Apr	12.49	10.81	15.64	17.57	12.10	10.87	15.62	16.82
May	12.62	10.70	15.81	17.46	12.22	10.75	15.74	16.48
Jun	12.41	10.80	15.78	16.74	12.42	11.03	15.76	16.14
Jul	12.50	11.26	15.94	16.69	12.30	11.18	15.76	15.94
Aug	12.47	11.36	15.61	16.63	12.43	11.34	15.73	15.95
Sep	12.44	11.38	15.45	16.48	12.54	11.35	15.60	15.72
Oct	12.57	11.58	15.60	16.51	12.54	11.64	15.62	15.58

[1] Barge lot—minimum 3,500 barrels.
[2] Cargo lot—minimum 130,000 barrels.

Selected Developed Countries: Retail Petroleum Product Prices

US Cents per Gallon

	Regular Gasoline		Premium Gasoline		Diesel Fuel	
	Price [1]	Tax	Price [1]	Tax	Price [1]	Tax
United States						
1973 Oct	40	12	44	12	23	12
1974 Jan	46	12	50	12	32	12
Jun	55	12	59	12	36	12
1975 Jan	53	12	57	12	50	12
Jun	57	12	61	12	51	12
1976 Jan	58	12	63	12	52	12
Jun	59	12	64	12	52	12
1977 Jan	60	12	65	12	54	12
Jun	63	12	69	12	57	12
Jul	63	12	69	12	57	12
Japan						
1973 Oct	88	39	105	39	48	21
1974 Jan	115	39	133	39	54	21
Jun	137	47	155	47	71	21
1975 Jan	152	47	170	47	78	21
Jun	155	47	172	47	82	21
1976 Jan	156	47	174	47	86	21
Jun	157	47	175	47	93	27
1977 Jan	167	59	185	59	93	27
Jun	167	59	185	59	88	25
West Germany						
1973 Oct	112	81	124	82	112	76
1974 Jan	137	83	149	84	139	79
Jun	137	83	149	84	139	79
1975 Jan	129	84	140	84	137	76
Jun	129	84	143	84	137	76
1976 Jan	141	84	151	85	141	79
Jun	144	84	154	85	141	79
1977 Jan	144	84	154	84	141	79
Jun	141	84	150	86	140	79
Sep	140	84	149	86	140	79
France [2]						
1973 Oct	95	65	103	69	66	39
1974 Jan	123	69	133	73	79	41
Jun	123	69	133	73	79	41
1975 Jan	129	73	139	77	88	38
Jun	129	73	139	77	85	46
1976 Jan	134	75	145	80	95	47
Jun	134	76	149	80	95	48
1977 Jan	159	97	171	103	99	48
Jun	167	101	180	108	109	54
Sep	167	101	180	108	109	54
United Kingdom						
1973 Oct	51	32	53	32	51	32
1974 Jan	55	32	57	32	55	32
Jun	76	39	79	39	78	39
1975 Jan	100	39	104	39	79	39
Jun	100	39	104	39	78	39
1976 Jan	107	54	109	53	88	39
Jun	107	54	109	54	88	39
1977 Jan	112	55	115	56	111	52
Jun	119	64	122	64	120	59
Sep	109	55	112	55	120	59
Italy [2]						
1973 Oct	75	56	79	58	41	26
1974 Jan	81	57	85	59	48	27
Jun	105	69	111	70	58	27
1975 Jan	122	69	128	87	58	27
Jun	122	83	128	87	60	28
1976 Jan	128	84	134	87	62	27
Jun	164	107	171	110	70	29
1977 Jan	205	147	213	153	72	29
Jun	205	148	213	153	66	19
Sep	205	148	213	153	66	19
Canada [3]						
1973 Oct	44	17	48	17	48	23
1974 Jan	44	17	48	17	48	23
Jun	51	17	55	17	55	23
1975 Jan	52	17	56	17	56	23
Jun	54	17	58	17	56	23
1976 Jan	66	25	70	25	61	31
Jun	66	25	70	25	62	31
1977 Jan	70	25	74	25	65	31
Mar	72	25	76	25	68	31

[1] Including tax.
[2] Government price ceilings in effect.
[3] Toronto prices.
NOTE: Converted at 28 March 1977 exchange rates.

OPEC Countries: Crude Oil Prices

US $ per Barrel

	4th Qtr 1975		1976		1st Qtr 1977		2d Qtr 1977		July 1977	
	Operating Company Cost	Direct Sales Price	Operating Company Cost	Direct Sales Price	Operating Company Cost	Direct Sales Price	Operating Company Cost	Direct Sales Price	Operating Company Cost	Direct Sales Price
OPEC average [3]	11.41	11.75	11.48	11.77	12.45	12.74	12.46	12.76	12.70	13.02
Saudi Arabia										
Light 34° API 1.70% sulfur	11.27	11.51	11.27	11.51	11.84	12.09	11.84	12.09	12.45	12.70
Berri 39° API 1.16% sulfur	11.62	11.87	11.62	11.87	12.22	12.48	12.22	12.48	12.95	13.22
Heavy 27° API 2.85% sulfur	10.90	11.14	10.85	11.08	11.13	11.37	11.13	11.37	11.77	12.02
Medium 31° API 2.40% sulfur	11.09	11.33	11.07	11.30	11.44	11.69	11.44	11.69	12.07	12.32
Iran										
Light 34° API 1.35% sulfur	11.40	11.62	11.40	11.62	12.59	12.81	12.59	12.81	12.59	12.81
Heavy 31° API 1.60% sulfur	11.28	11.50	11.15	11.37	12.27	12.49	12.27	12.49	12.27	12.49
Iraq 35° API 1.95% sulfur	11.21	11.43	11.46	11.46	12.62	12.62	12.60	12.60	12.60	12.60
Nigeria 34° API 0.16% sulfur	12.11	12.51	12.64	12.93	13.91	14.22	14.17	14.52	14.17	14.52
UAE 39° API 0.75% sulfur	11.62	11.92	11.62	11.92	12.08	12.50	12.08	12.50	12.73	13.26
Kuwait 31° API 2.50% sulfur [4]	11.15	11.30	11.11	11.26	12.22	12.37	12.22	12.37	12.22	12.37
Libya 40° API 0.22% sulfur	12.08	12.32	12.21	12.47	13.68	13.92	13.68	13.92	13.92	14.20
Venezuela 26° API 1.52% sulfur	11.19	N.A.	11.13	11.33	12.52	12.72	12.52	12.72	12.52	12.72
Indonesia 35° API 0.09% sulfur	10.65	12.80	11.10	12.80	12.15	13.55	12.15	13.55	12.15	13.55
Algeria 42° API 0.10% sulfur	12.62	12.75	13.01	13.01	14.29	14.29	14.29	14.29	14.45	14.45
Qatar 40° API 1.17% sulfur	11.54	11.85	11.54	11.85	12.88	13.19	12.88	13.19	12.88	13.19
Gabon 29° API 1.26% sulfur	9.23	10.50	10.29	11.55	10.45	11.55	11.23	12.60	11.23	12.60
Ecuador 28° API 0.93% sulfur	10.41	11.70	10.81	11.46	10.81	11.46	N.A.	13.00	N.A.	13.00

[1] Total average f.o.b. costs paid by present or former concessionaires.

[2] F.o.b. prices set by the government for direct sales and, in most cases, for the producing company buy-back oil.

[3] Weighted by the volume of production.

[4] A 10-cent-per-barrel discount will be offered to buyers provided they meet their minimum contractual lifting volumes for second half 1977. The discount will be credited to the lifting companies' accounts beginning in first quarter 1978.

USSR: Crude Oil Production [1]

	Million b/d
1970	7.06
1971	7.54
1972	8.01
1973	8.58
1974	9.18
1975	9.82
1976	10.37
1977	
Jan	10.64
Feb	10.69
Mar	10.83
Apr	10.85
May	10.86
Jun	10.93
Jul	10.95
Aug	10.97

[1] Including natural gas liquids.

USSR: Regional Production of Crude Oil [1]

Million b/d

	1970	1971	1972	1973	1974	1975	1976 [2]
Total	**7.06**	**7.54**	**8.01**	**8.58**	**9.18**	**9.82**	**10.4**
Urals-Volga	4.17	4.23	4.31	4.40	4.44	4.50	4.5
West Siberia	0.63	0.90	1.25	1.75	2.33	2.96	3.6
Central Asia	0.58	0.66	0.71	0.76	0.79	0.81	0.8
Azerbaydzhan SSR	0.40	0.38	0.37	0.36	0.36	0.34	0.3
North Caucasus	0.68	0.72	0.69	0.59	0.53	0.47	0.4
Ukrainian SSR	0.27	0.28	0.28	0.27	0.25	0.23	0.2
Komi ASSR	0.11	0.12	0.13	0.13	0.14	0.14	0.2
Belorussia SSR	0.08	0.11	0.12	0.14	0.16	0.16	0.2
Far East	0.05	0.05	0.05	0.05	0.05	0.04	Negl.
Other	0.09	0.09	0.10	0.13	0.13	0.17	0.1

[1] Including natural gas liquids.
[2] Preliminary.

USSR: Imports of Oil

Thousand b/d

	1970	1971	1972	1973	1974	1975	1976
Total	**90**	**130**	**180**	**290**	**110**	**150**	**128**
Middle East							
Egypt	40	40	20	4	3	5	3
Iraq	0	0	80	220	78	108	116
Other	50	90	80	66	29	37	9

USSR: Exports of Oil

Thousand b/d

	1970	1971	1972	1973	1974	1975	1976
Total	**1,920**	**2,110**	**2,140**	**2,380**	**2,340**	**2,600**	**2,970**
Other Communist countries	**1,010**	**1,110**	**1,200**	**1,350**	**1,440**	**1,550**	**1,680**
Eastern Europe	805	895	975	1,100	1,180	1,260	1,370
Asia	30	25	20	20	30	40	40
Cuba	120	130	140	150	155	160	175
Yugoslavia	55	60	65	80	75	90	95
Free World countries	**910**	**1,000**	**940**	**1,030**	**900**	**1,050**	**1,290**
North America	5	0	10	30	20	15	23
Canada	0	0	0	0	3	5	2
United States	5	0	10	30	17	10	21
Western Europe	760	830	815	880	750	880	1,102
Finland	155	170	170	200	180	175	190
France	50	90	60	105	30	70	117
Italy	205	180	170	175	135	135	240
Netherlands	30	35	50	65	60	60	53
Sweden	95	90	90	65	60	70	55
West Germany	125	120	125	115	125	150	145
Other	100	145	150	155	160	220	302
Near and Middle East	60	60	50	30	30	45	56
Egypt	30	32	30	7	4	5	5
Greece	20	20	18	16	20	38	40
Other	10	8	2	7	6	2	11
Africa	25	30	35	35	23	20	23
Ghana	10	12	13	12	6	3	5
Morrocco	14	17	19	19	13	13	13
Other	1	1	3	4	4	4	5
Asia	60	80	30	55	52	60	65
India	5	10	8	10	20	25	22
Japan	54	66	20	41	25	26	35
Other	1	4	2	4	7	9	8
Latin America	0	0	0	0	25	30	21
Brazil	0	0	0	0	25	30	21

USSR: Oil Consumption

	Million b/d
1970	5.15
1971	5.46
1972	5.92
1973	6.33
1974	6.79
1975	7.20
1976	7.55

USSR: Natural Gas Production
Million cm/d

1970	542.3
1971	581.9
1972	604.9
1973	647.5
1974	713.8
1975	792.6
1976	876.0
1977	
Jan	958.1
Feb	971.4
Mar	958.1
Apr	933.3
May	912.9
Jun	903.3
Jul	900.0
Aug	909.7

USSR: Regional Production of Natural Gas
Million cm/d

	1970	1971	1972	1973	1974	1975 [1]	1976 [2]
Total	**542.3**	**581.9**	**604.9**	**647.5**	**713.8**	**792.6**	**876.0**
Central Asia	131.7	148.1	162.8	196.0	226.0	260.0 [1]	285.6
Ukrainian SSR	166.8	177.0	184.1	186.6	187.2	188.2 [1]	187.7
North Caucasus	104.8	99.1	82.1	70.8	68.0	65.1	60.0 [3]
West Siberia	26.5	26.5	31.1	45.0	67.7	103.0	131.1
Komi ASSR	17.0	27.5	36.4	38.2	46.7	50.7 [1]	53.6
Azerbaydzhan SSR	15.0	15.9	18.7	22.9	24.9	27.1 [1]	30.1
Urals-Voga and other producing regions in the RSFSR	80.5	87.8	89.7	88.0	93.3	98.5 [1]	127.9

[1] Revised.
[2] Preliminary.
[3] Estimate based on average rate of decline during 1970-75.

USSR: Natural Gas Trade
Million cm/d

	1970	1971	1972	1973	1974	1975	1976
Exports	**9.0**	**12.5**	**13.9**	**18.7**	**38.5**	**53.0**	**70.4**
Eastern Europe	6.4	8.6	9.4	13.3	23.4	31.0	36.7
Bulgaria	0	0	0	0	0.8	3.2	6.1
Czechoslovakia	3.7	4.5	5.3	6.5	8.9	10.1	11.7
East Germany	0	0	0	2.1	7.9	9.1	9.2
Hungary	0	0	0	0	0	1.7	2.7
Poland	2.7	4.1	4.1	4.7	5.8	6.9	7.0
Western Europe	2.6	3.9	4.5	5.4	15.1	22.0	33.7
Austria	2.6	3.9	4.5	4.4	5.8	5.1	7.6
Finland	0	0	0	0	1.2	2.0	2.4
France	0	0	0	0	0	0	2.7
Italy	0	0	0	0	2.2	6.4	10.1
West Germay	0	0	0	1.0	5.9	8.5	10.9
Imports	**9.7**	**22.3**	**30.2**	**31.3**	**32.7**	**34.0**	**32.2**
Afghanistan	7.1	6.9	7.8	7.5	7.8	7.8	6.8
Iran	2.6	15.4	22.4	23.8	24.9	26.2	25.4

USSR: Consumption of Natural Gas

	Million cm/d
1970	543.0
1971	591.7
1972	621.2
1973	660.1
1974	708.0
1975	773.6
1976	837.8

Eastern Europe: Oil Production and Consumption

Thousand b/d

	1970	1971	1972	1973	1974	1975	1976
Production	**384**	**393**	**404**	**410**	**417**	**423**	**429**
Bulgaria	7	6	5	4	3	2	2
Czechoslovakia	4	4	4	3	3	3	2
East Germany	1	1	1	1	1	1	1
Hungary	39	39	40	40	40	40	43
Poland	8	8	7	8	11	11	9
Romania	268	276	283	286	290	292	294
Yugoslavia	57	59	64	68	69	74	78
Consumption	**1,236**	**1,385**	**1,525**	**1,797**	**1,822**	**1,977**	**N.A.**
Bulgaria	179	208	218	244	262	284 [1]	N.A.
Czechoslovakia	207	236	256	294	308	330 [1]	N.A.
East Germany	191	209	272	293	297	332 [1]	N.A.
Hungary	128	145	163	179	186	204	N.A.
Poland	170	192	214	266	259	280	N.A.
Romania	207	227	239	270	276	310 [1]	N.A.
Yugoslavia	154	168	163	251	234	237	N.A.

[1] Estimated.

Eastern Europe: Oil Trade

Thousand b/d

	1970	1971	1972	1973	1974	1975 (Est.)
Crude Oil [1]						
Imports	**879**	**1,013**	**1,171**	**1,401**	**1,445**	**1,550**
USSR	679	800	921	1,044	1,118	1,214
OPEC	102	117	107	233	270	287
Iraq	40	53	28	53	86	146
Iran	62	64	71	94	63	14
Algeria	0	0	6	0	5	14
Libya	0	Negl.	2	0	4	9
Kuwait	0	0	0	4	0	0
Other OPEC	0	0	0	82 [2]	112 [2]	104 [2]
Other Non-OPEC	98	96	143	124	57	49
Belgium	0	0	0	0	6	4
West Germany	0	0	0	6	4	0
Netherlands	0	0	0	0	2	11
Syria	Negl.	0	7	3	Negl.	5
France	0	7	1	0	0	0
Other	98	89	135	115	45	29
Petroleum products						
Imports	**166**	**152**	**158**	**175**	**176**	**138**
Bulgaria	58	51	47	47	48	22
Czechoslovakia	22	20	21	25	27	20
East Germany	2	4	11	2	2	2
Hungary	19	15	13	18	17	13
Poland	48	45	47	61	60	63
Yugoslavia	17	17	19	22	22	18
Exports	**200**	**179**	**218**	**201**	**233**	**225**
Czechoslovakia	15	18	20	13	10	13
East Germany	26	20	47	48	58	48
Hungary	17	7	11	10	7	4
Poland	26	21	34	27	24	32
Romania	107	107	102	99	129	124
Yugoslavia	9	6	4	4	5	4

[1] Crude oil exports are negligible.
[2] Including data that cannot be distributed by country of origin.

Eastern Europe: Natural Gas Production and Consumption

Million cm/d

	1970	1971	1972	1973	1974	1975
Production	**101.86**	**111.93**	**122.65**	**134.98**	**140.20**	**144.22**
Bulgaria	1.30	0.90	0.60	0.61	0.49	0.40 [1]
Czechoslovakia	2.22	2.11	1.81	1.73	1.64	1.64
East Germany	3.38	7.67	13.70	19.18	21.92	21.92 [1]
Hungary	9.50	10.15	11.26	13.21	13.96	14.24
Poland	14.20	14.75	15.95	16.51	15.72	16.28
Romania	68.58	73.20	75.93	80.10	82.51	85.49 [1]
Yugoslavia	2.68	3.15	3.40	3.64	3.96	4.25
Consumption	**108.48**	**120.46**	**131.74**	**148.10**	**161.98**	**169.13**
Bulgaria	1.30	0.90	0.60	0.61	1.33	1.76 [1]
Czechoslovakia	5.70	6.32	6.85	7.99	9.01	9.85
East Germany	3.82	7.97	13.70	21.34	29.70	30.95 [1]
Hungary	10.05	10.72	11.81	13.76	14.51	14.79
Poland	16.95	18.83	20.06	21.19	21.52	22.57
Romania	68.03	72.65	75.38	79.57	81.95	84.96 [1]
Yugoslavia	2.63	3.07	3.34	3.64	3.96	4.25

[1] Estimated.

Eastern Europe: Natural Gas Trade

Million cm/d

	1970	1971	1972	1973	1974	1975
Imports	**7.46**	**9.50**	**10.02**	**13.92**	**22.34**	**25.44**
Bulgaria	0	0	0	0	0.84	1.36
Czechoslovakia	3.72	4.55	5.36	6.53	7.37	8.21
East Germany	0.44	0.30	Negl.	2.16	7.78	9.03
Hungary	0.55	0.57	0.55	0.55	0.55	0.55
Poland	2.75	4.08	4.11	4.68	5.80	6.29
Exports	**0.84**	**0.97**	**0.93**	**0.80**	**0.56**	**0.53**
Czechoslovakia	0.24	0.34	0.32	0.27	Negl.	0
Romania	0.55	0.55	0.55	0.53	0.56	0.53 [1]
Yugoslavia	0.05	0.08	0.06	Negl.	0	0
	0.84	0.97	0.93	0.80	0.56	0.53

[1] Estimated.

PRC: Oil Production, Consumption, and Trade

Thousand b/d

	1970	1971	1972	1973	1974	1975	1976
Crude Oil Production	570	730	860	1,090	1,310	1,490	1,670
Crude Oil Consumption	500	630	740	920	1,030	1,300	1,500
Oil Trade							
Crude Exports							
Japan [1]	0	0	0	20	80	164	136
Philippines [1]	0	0	0	0	2.8	10.0	10.0
Thailand [1]	0	0	0	0	0	5.0	0
Product Exports							
North Korea	10	10	10	5	5	5	5
Thailand [1]	0	0	0	0	0	0	6.2
Vietnam	20	20	20	8	9	11	11

[1] Data represent contracts, not all of which were delivered.

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INTERNATIONAL ENERGY BIWEEKLY REVIEW

Overview

At the moment, agreement on an increase of 5 to 10 percent in the price of Saudi benchmark crude seems probable as cartel members prepare for their December meeting in Caracas. Whatever the outcome at Caracas, the next OPEC price rise will occur in the midst of an already troubled economic environment. Almost without exception the economic outlook for developed countries is poor—real growth is slowing almost across the board, unemployment is high and creeping still higher, and inflation remains stuck at double the long-term rate. Each of these problems will be aggravated by higher oil prices. In the event of a 10-percent oil price rise, the loss in Big Seven real GNP will approximate half a percent while nearly a full percentage point will be added to the rate of inflation. The damage to growth could be substantially worse if oil-related losses in real income and price stability spark a strong negative reaction from consumers and investors.

Smaller industrial countries will be hit harder than the Big Seven by the oil price rise on several counts. For one thing, the direct loss in GNP will be larger since the smaller countries spend a higher proportion of their income on imported oil. In several cases, notably Turkey, severe payments problems and inability to finance higher oil import costs will necessitate still larger reductions in real GNP, perhaps as much as 2 percent in some instances. For non-OPEC LDCs, the chief impact of higher oil prices will be a more than $2 billion worsening in their current account deficit. In these circumstances, developing countries would need offsetting increases in foreign exchange drawdowns or added foreign borrowing to maintain imports and avoid losses in consumption and growth.

Our analysis does not attempt to assess the impact of the next OPEC price rise on longer term problems, particularly the issue of future oil supply shortages. Given the lead times involved in developing new supplies, the main adjustments will have to be made on the demand side through higher real prices and in turn slower economic growth, as well as stricter government-mandated conservation measures. At this point, it is impossible to assess how much of an impact toward closing the potential energy supply gap a 10-percent nominal price increase will have.

Despite the potential adverse effects of an oil price rise, foreign governments are not inclined to appeal to OPEC for restraint. The developed countries—large and

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small—are convinced that only the United States can put effective pressure on OPEC. While many would join in a move to try to hold oil prices down, they believe it would be merely a pro forma exercise. Others, which want to preserve what they believe are special relationships with OPEC countries, would try to avoid any involvement. The non-OPEC LDCs may argue against an oil price hike but would do it privately and on their own. Association with the developed countries on this issue would be politically unthinkable. (Confidential)

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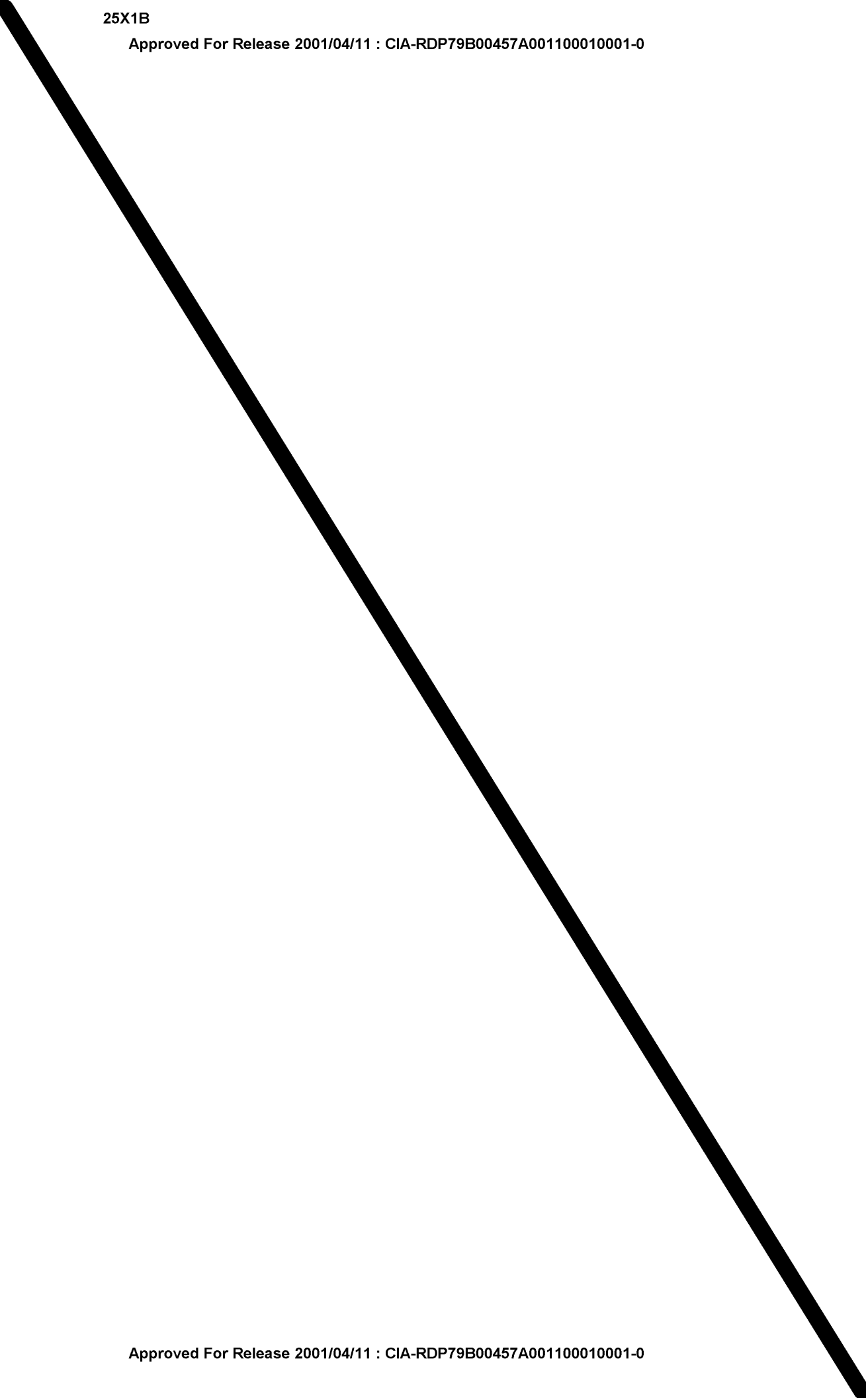

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Rating forms will be completed for each finished intelligence publication prepared by DDI/Components. This is a machine-supported system and information must be gathered in a formatted fashion. Therefore, each analyst will complete the NON-SHADED parts of section I and II of this form. Please type or print legibly. Questions should be directed to A/Comp/R&E Room 3E63 x 7871 (black) x 1724 (red).

SECTION I

25X1A

NAME AND TELEPHONE NUMBER OF ANALYST [redacted] x-5418

CARD 1 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)	DATE PUBLISHED (9-12) MO YR	PUBLICATION NUMBER (13-23)	FOR CRG ONLY CIB PUBLICATION DATE (13-18) MO DAY YR
1		11 77	ER IR 77-023	

PUBLICATION TITLE (24-80)

MOST IMPORTERS UNLIKELY TO AI / REAL FOR OPEC RESTRAINT

CARD 2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)	OFFICE (9-10)			
2		✓ 02 OER	04 OGCR	07 OSI	27 CRG
		03 OSR	06 OCR	08 OWI	28 ORPA
		30 OIA	40 DIA	60 STATE	59 NSA
		JOINT OFFICE (specify)			(- -)

KEY INTELLIGENCE QUESTION(S)-KIQ

11	12	13	14

1ST KIQ # | 2ND KIQ #

DOCUMENT TYPE (15-16)

04 IM	11 IH	15 TM	53 EIW
05 M	12 IB	32 NID	60 SURVEYOR
07 IR	13 RP	41 SID	61 WIS
08 R	14 BR	✓ 51 IOD	

17	18	19	20

CLASSIFICATION: Confidential

CLASSIFICATION CONTROLS:

TOPICAL CATEGORY

- [ ] Internal Politics
- [ ] International Relations
- [x] Economics
- [ ] Military
- [ ] Science & Technology
- [ ] Geography
- [ ] Biography

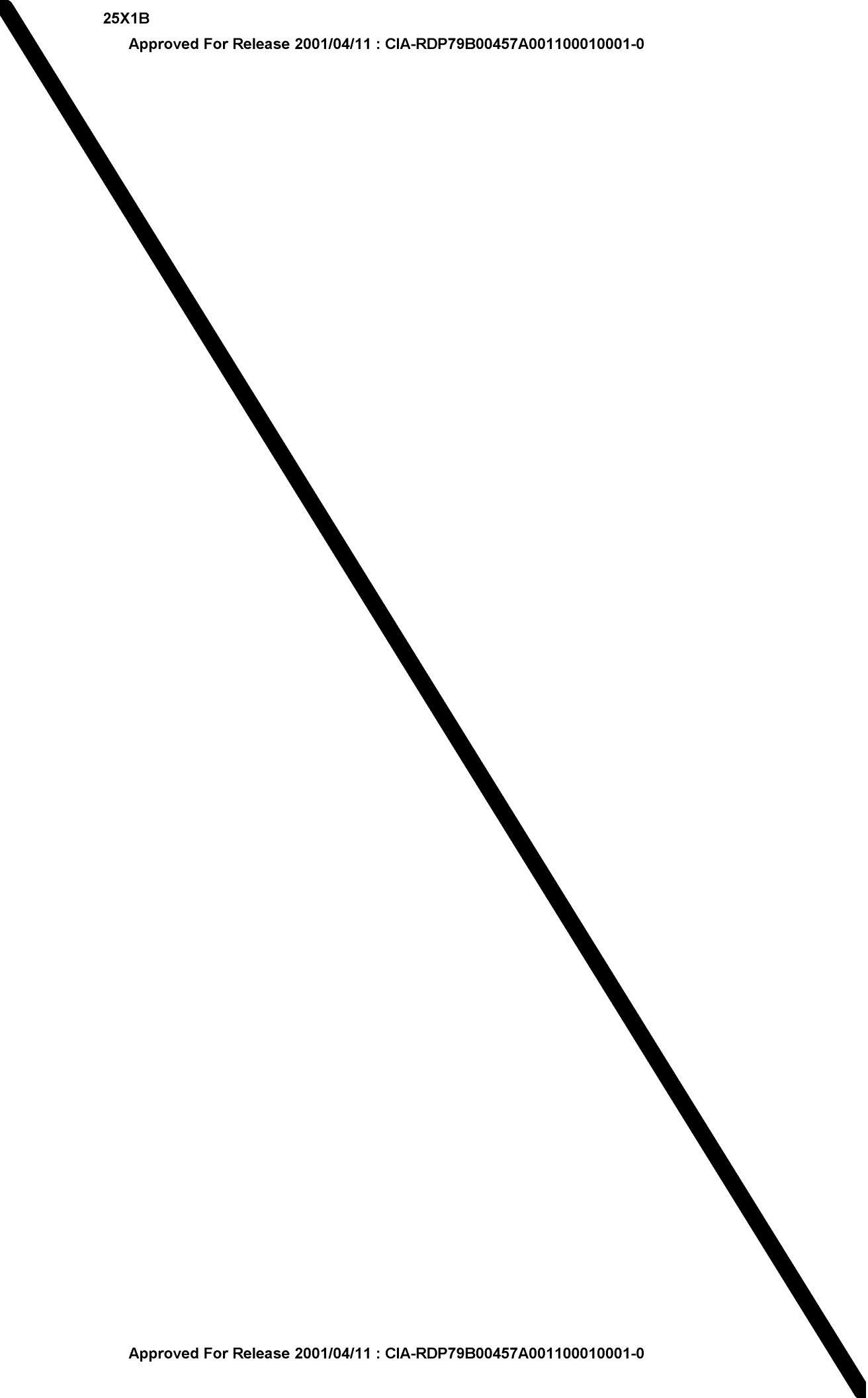
GEOGRAPHIC AREA CATEGORY

- [ ] USSR
- [ ] Eastern Europe
- [x] Western Europe
- [ ] China
- [x] Other Far East
- [ ] Near East/N. Africa
- [x] South Asia
- [ ] Africa
- [x] Latin America

LIST SPECIFIC COUNTRIES: Numerous developed and developing countries

TO BE COMPLETED BY R & E

CONTROL NO. (21-22)	TOPIC (23-24)	AREA (25-28)



PUBLICATIONS SOURCE SURVEY

USE OF INFORMATION FROM COLLECTION PROGRAMS IN FINISHED INTELLIGENCE

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25X1A

SECTION I

NAME AND TELEPHONE NUMBER OF ANALYST: [redacted] X7402 I/WE

CARD 1 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)	DATE PUBLISHED (9-12) MO / YR	PUBLICATION NUMBER (13-23)	FOR CRG ONLY CIB PUBLICATION DATE (13-18) MO / DAY / YR
1		11 / 77	ERJUD-77023	

PUBLICATION TITLE (24-80)

West Germany: Outlook Improved for Nuclear Energy Industry

CARD 2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)
2	

OFFICE (9-10)

X 02 OER	04 OGCR	07 OSI	27 CRG
03 OSR	06 OCR	08 OWI	28 ORPA
30 OIA	40 DIA	60 STATE	59 NSA

JOINT OFFICE (specify) (- -)

KEY INTELLIGENCE QUESTION(S)-KIQ

11	12	13	14
1ST KIQ #		2ND KIQ #	

DOCUMENT TYPE (15-16)

04 IM	11 IH	15 TM	53 EIW
05 M	12 IB	32 NID	60 SURVEYOR
07 IR	13 RP	41 SID	61 WIS
08 R	14 BR	X 51 ~~100~~ IEBR	

17	18	19	20

CLASSIFICATION: Confidential

CLASSIFICATION CONTROLS:

TOPICAL CATEGORY

- [ ] Internal Politics
- [ ] International Relations
- [X] Economics
- [ ] Military
- [ ] Science & Technology
- [ ] Geography
- [ ] Biography

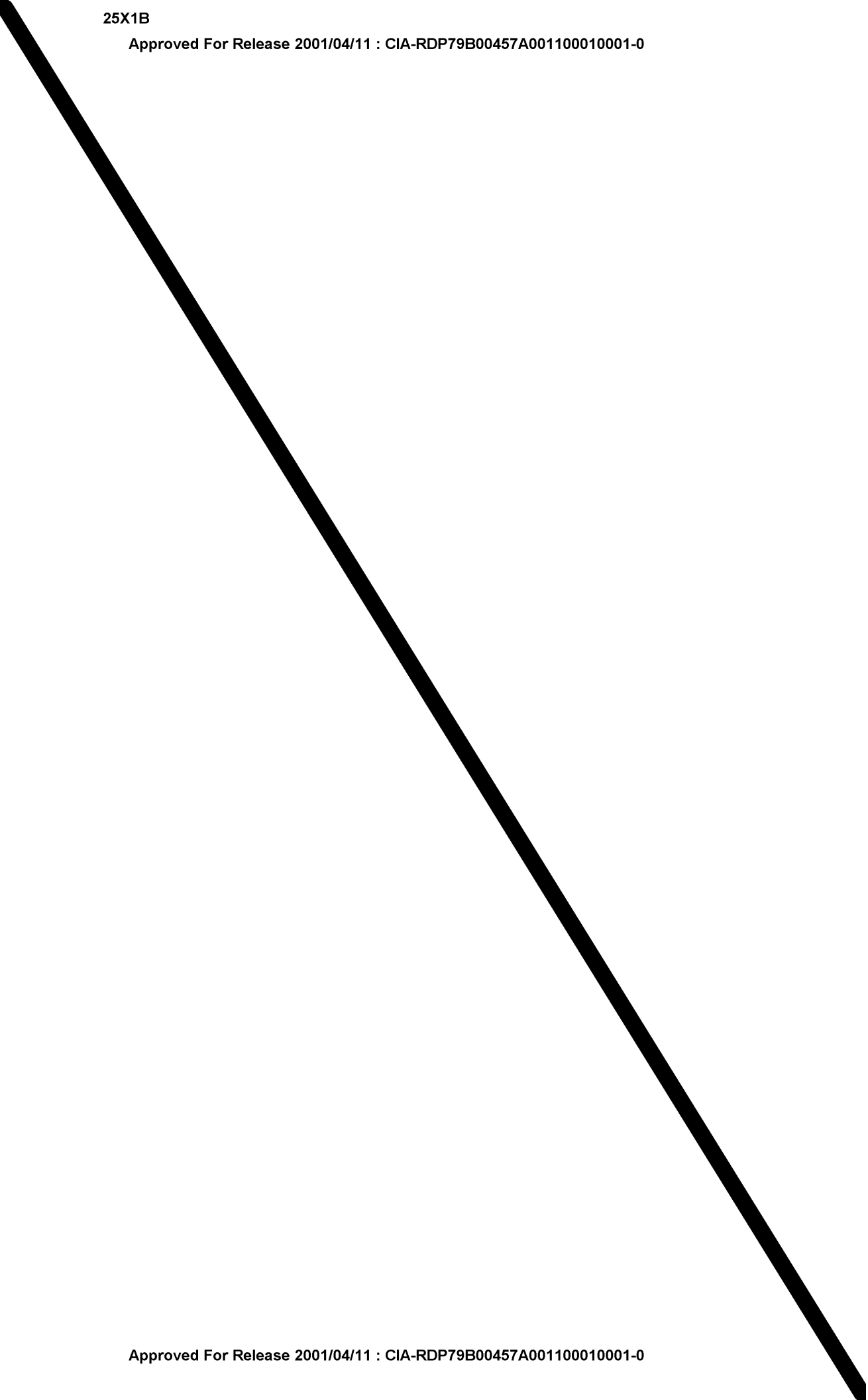
GEOGRAPHIC AREA CATEGORY

- [ ] USSR
- [ ] Eastern Europe
- [X] Western Europe
- [ ] China
- [ ] Other Far East
- [ ] Near East N. Africa
- [ ] South Asia
- [ ] Africa
- [ ] Latin America

LIST SPECIFIC COUNTRIES:

TO BE COMPLETED BY R & E

CONTROL NO. (21-22)	TOPIC (23-24)	AREA (25-28)



SECRET

PUBLICATIONS SOURCE SURVEY
USE OF INFORMATION FROM COLLECTION PROGRAMS IN FINISHED INTELLIGENCE

GENERAL INSTRUCTIONS

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SECTION I

NAME AND [redacted] 5804 25X1A

CARD 1 XX[redacted]XXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)	DATE PUBLISHED (9-12) MO YR	PUBLICATION NUMBER (13-23)	FOR CRG ONLY CIB PUBLICATION DATE (13-18) MO DAY YR
1		11 77	ER 10077-023	

PUBLICATION TITLE (24-80)

24 FRANCE: ENERGY CONSERVATION 52

53 80

CARD 2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CARD TYPE (1-2)	SURVEY NO. (3-8)
2	

OFFICE (9-10)

X	02 OER		04 OGCR		07 OSI		27 CRG
	03 OSR		06 OCR		08 OWI	✓	28 ORPA
	30 OIA		40 DIA		60 STATE		59 NSA

JOINT OFFICE (specify): (- -)

KEY INTELLIGENCE QUESTION(S)-KIQ

11	12	13	14
		6	6
1ST KIQ #		2ND KIQ #	

DOCUMENT TYPE (15-16)

	04 IM		11 IH		15 TM		53 EIW
	05 M		12 IB		32 NID		60 SURVEYOR
	07 IR		13 RP		41 SID		61 WIS
	08 R		14 BR	✓	51 IOD		

17	18	19	20

CLASSIFICATION: Conf.

CLASSIFICATION CONTROLS:

TOPICAL CATEGORY

- [ ] Internal Politics
- [ ] International Relations
- [x] Economics
- [ ] Military
- [ ] Science & Technology
- [ ] Geography
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GEOGRAPHIC AREA CATEGORY

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- [x] Western Europe
- [ ] China
- [ ] Other Far East
- [ ] Near East/N. Africa
- [ ] South Asia
- [ ] Africa
- [ ] Latin America

LIST SPECIFIC COUNTRIES: France

TO BE COMPLETED BY R & E

CONTROL NO. (21-22)	TOPIC (23-24)	AREA (25-28)